2013 Buick Encore Owner Manual

In Brief 1-1
Instrument Panel 1-2
Initial Drive Information 1-4
Vehicle Features 1-15
Performance and Maintenance 1-19

Keys, Doors, and Windows 2-1
Keys and Locks 2-1
Doors 2-8
Vehicle Security 2-9
Exterior Mirrors 2-11
Interior Mirrors 2-13
Windows 2-14
Roof 2-16

Seats and Restraints 3-1
Head Restraints 3-2
Front Seats 3-3
Rear Seats 3-10
Safety Belts 3-14
Airbag System 3-23
Child Restraints 3-35

Storage 4-1
Storage Compartments 4-1
Additional Storage Features ... 4-3
Roof Rack System 4-5

Instruments and Controls 5-1
Controls 5-2
Warning Lights, Gauges, and Indicators 5-8
Information Displays 5-22
Vehicle Messages 5-25
Vehicle Personalization 5-31

Lighting 6-1
Exterior Lighting 6-1
Interior Lighting 6-5
Lighting Features 6-6

Infotainment System 7-1
Introduction 7-1
Radio 7-7
Audio Players 7-11
Phone 7-16
Trademarks and License Agreements 7-26

Climate Controls 8-1
Climate Control Systems 8-1
Air Vents 8-6
Maintenance 8-6

Driving and Operating 9-1
Driving Information 9-2
Starting and Operating 9-15
Engine Exhaust 9-22
Automatic Transmission 9-23
Drive Systems 9-26
Brakes 9-26
Ride Control Systems 9-28
Cruise Control 9-32
Object Detection Systems 9-34
Fuel 9-42
Towing 9-47
Conversions and Add-Ons ... 9-47

Vehicle Care 10-1
General Information 10-2
Vehicle Checks 10-3
Headlamp Aiming 10-23
Bulb Replacement 10-23
Electrical System 10-27
Wheels and Tires 10-35

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Jump Starting 10-61
Towing 10-64
Appearance Care 10-67

Service and Maintenance . . . 11-1
General Information 11-1
Maintenance Schedule 11-3
Special Application Services 11-8
Additional Maintenance and Care 11-8
Recommended Fluids, Lubricants, and Parts 11-11
Maintenance Records 11-13

Technical Data 12-1
Vehicle Identification 12-1
Vehicle Data 12-2

Customer Information 13-1
Customer Information 13-2
Reporting Safety Defects 13-17
Vehicle Data Recording and Privacy 13-19

OnStar 14-1
OnStar Overview 14-1
OnStar Services 14-2
OnStar Additional Information 14-5

Index i-1

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This manual describes features that may or may not be on your specific vehicle either because they are options that you did not purchase or due to changes subsequent to the printing of this owner manual.

Please refer to the purchase documentation relating to your specific vehicle to confirm each of the features found on your vehicle. For vehicles first sold in Canada, substitute the name “General Motors of Canada Limited” for Buick Motor Division wherever it appears in this manual.

Keep this manual in the vehicle for quick reference.

Canadian Vehicle Owners

Propriétaires Canadiens

A French language manual can be obtained from your dealer, at www.helminc.com, or from:

On peut obtenir un exemplaire de ce guide en français auprès du concessionnaire ou à l'adresse savant:

Helm, Incorporated
Attention: Customer Service
47911 Halyard Drive
Plymouth, MI 48170

Using this Manual

To quickly locate information about the vehicle, use the Index in the back of the manual. It is an alphabetical list of what is in the manual and the page number where it can be found.

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About Driving the Vehicle

As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or an accident. Be sure to read the driving guidelines in this manual in the section called “Driving and Operating” and specifically *Driver Behavior on page 9-2*, *Driving Environment on page 9-2*, and *Vehicle Design on page 9-2*.

Danger, Warnings, and Cautions

Warning messages found on vehicle labels and in this manual describe hazards and what to do to avoid or reduce them.

Danger indicates a hazard with a high level of risk which will result in serious injury or death.

Warning or **Caution** indicates a hazard that could result in injury or death.

⚠ WARNING

These mean there is something that could hurt you or other people.

Notice: **This means there is something that could result in property or vehicle damage. This would not be covered by the vehicle's warranty.**



A circle with a slash through it is a safety symbol which means “Do Not,” “Do not do this,” or “Do not let this happen.”

Symbols

The vehicle has components and labels that use symbols instead of text. Symbols are shown along with the text describing the operation or information relating to a specific component, control, message, gauge, or indicator.

: This symbol is shown when you need to see your owner manual for additional instructions or information.

: This symbol is shown when you need to see a service manual for additional instructions or information.

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Vehicle Symbol Chart

Here are some additional symbols that may be found on the vehicle and what they mean. For more information on the symbol, refer to the Index.

: Airbag Readiness Light

: Air Conditioning

: Antilock Brake System (ABS)

: Audio Steering Wheel Controls or OnStar®

: Brake System Warning Light

: Charging System

: Cruise Control

: Engine Coolant Temperature

: Exterior Lamps

: Fog Lamps

: Fuel Gauge

: Fuses

: Headlamp High/Low-Beam Changer

: LATCH System Child Restraints

: Malfunction Indicator Lamp

: Oil Pressure

: Power

: Remote Vehicle Start

: Safety Belt Reminders

: Tire Pressure Monitor

: Traction Control/StabiliTrak®

: Windshield Washer Fluid

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✍ NOTES

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In Brief

Instrument Panel

Instrument Panel 1-2

Initial Drive Information

Initial Drive Information 1-4
Remote Keyless Entry (RKE) System 1-4
Remote Vehicle Start 1-4
Door Locks 1-5
Liftgate 1-5
Windows 1-6
Seat Adjustment 1-6
Memory Features 1-8
Second Row Seats 1-8
Heated Seats 1-8
Head Restraint Adjustment 1-9
Safety Belts 1-9
Passenger Sensing System . . . 1-9
Mirror Adjustment 1-10
Steering Wheel Adjustment 1-10
Interior Lighting 1-11
Exterior Lighting 1-11
Windshield Wiper/Washer 1-12
Climate Controls 1-13
Transmission 1-14

Vehicle Features

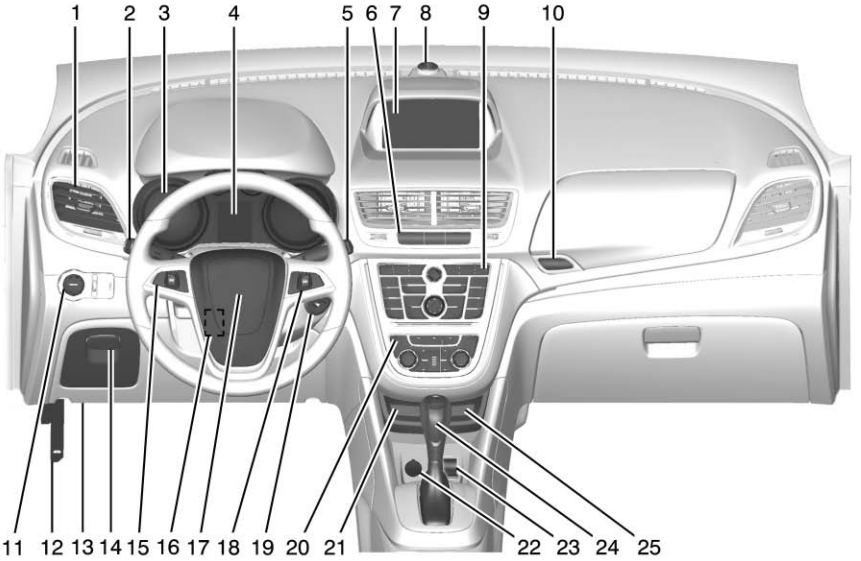
Radio(s) 1-15
Portable Audio Devices 1-16
Bluetooth® 1-16
Steering Wheel Controls 1-16
Infotainment System 1-17
Driver Information Center (DIC) 1-17
Rear Vision Camera (RVC) 1-17
Ultrasonic Parking Assist 1-17
Power Outlets 1-18
Sunroof 1-18

Performance and Maintenance

Traction Control System (TCS) 1-19
StabiliTrak® System 1-19
Tire Pressure Monitor 1-19
Engine Oil Life System 1-20
Driving for Better Fuel Economy 1-20
Roadside Assistance Program 1-21
OnStar® 1-21

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Instrument Panel



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1. *Air Vents on page 8-6*.
2. Turn Signal Lever. See *Turn and Lane-Change Signals on page 6-4*.

   Headlamp High/Low-Beam Changer on page 6-2.
3. *Instrument Cluster on page 5-9*.
4. Driver Information Center (DIC) Display. See *Driver Information Center (DIC) on page 5-22*.
5. *Windshield Wiper/Washer on page 5-3*.

   Rear Window Wiper/Washer on page 5-4.
6. *Traction Control System (TCS) on page 9-28*/*StabiliTrak® System on page 9-30*.

   Hazard Warning Flashers on page 6-3.

   Passenger Airbag Status Indicator. See *Passenger Sensing System on page 3-29*.
7. Infotainment Display.
8. Light Sensor. See *Automatic Headlamp System on page 6-3*.
9. *AM-FM Radio on page 7-7*.
10. *Instrument Panel Storage on page 4-1*.
11. *Exterior Lamp Controls on page 6-1*.

    Instrument Panel Illumination Control on page 6-5.

    Front Fog Lamps on page 6-4.
12. Hood Release. See *Hood on page 10-4*.
13. Data Link Connector (DLC) (Out of View). See *Malfunction Indicator Lamp on page 5-14*.
14. *Instrument Panel Storage on page 4-1*.
15. *Cruise Control on page 9-32*.

    Forward Collision Alert (FCA) System on page 9-34 (If Equipped).
16. *Steering Wheel Adjustment on page 5-2*.
17. *Horn on page 5-3*.
18. *Steering Wheel Controls on page 5-2*.
19. *Ignition Positions on page 9-15*.
20. *Climate Control Systems on page 8-1* or *Dual Automatic Climate Control System on page 8-3* (If Equipped).
21. *Ultrasonic Parking Assist on page 9-36* (If Equipped).

    Lane Departure Warning (LDW) on page 9-40 (If Equipped).
22. *Power Outlets on page 5-6*.
23. Auxiliary Input Jack. See *Auxiliary Devices on page 7-13*.

    USB Port. See *Auxiliary Devices on page 7-13*.
24. Shift Lever. See *Automatic Transmission on page 9-23*.
25. *Safety Locks on page 2-7*.

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Initial Drive Information

This section provides a brief overview about some of the important features that may or may not be on your specific vehicle.

For more detailed information, refer to each of the features which can be found later in this owner manual.

Remote Keyless Entry (RKE) System

The Remote Keyless Entry (RKE) transmitter may work up to 30 m (98 ft) away from the vehicle.



Press the key release button to extend the key blade. The key can be used for the ignition and all locks.

: Press to unlock the driver door, all doors or, if equipped, a locking fuel door. Hazard warning flashers will flash twice.

: Press to lock all doors or, if equipped, a locking fuel door.

Lock and unlock feedback can be personalized. See *Vehicle Personalization on page 5-31*.

: If equpped, press and hold briefly to initiate vehicle locator. Press and hold for at least three seconds to sound the panic alarm. Press again to cancel the panic alarm.

See *Keys on page 2-1* and *Remote Keyless Entry (RKE) System Operation on page 2-3*.

Remote Vehicle Start

For vehicles with this feature, the engine can be started from outside the vehicle.

Starting the Vehicle

1. Aim the RKE transmitter at the vehicle.
2. Press and release .
3. Immediately after completing Step 2, press and hold for several seconds or until the turn signal lamps flash.

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When the engine starts, the parking lamps will turn on and remain on as long as the engine is running. The doors will be locked and the climate control system may come on.

The engine will continue to run for 10 minutes. Repeat the steps for a 10-minute time extension. Remote start can be extended only once.

Canceling a Remote Start

To cancel a remote start, do one of the following:

- Aim the RKE transmitter at the vehicle and press and hold until the parking lamps turn off.
- Turn on the hazard warning flashers.
- Turn the vehicle on and then off.

See *Remote Vehicle Start on page 2-5*.

Door Locks

To lock or unlock a door manually:

- From the inside, to lock the door, use the lock knob on the top of the door panel.
- From the outside, turn the key toward the front or rear of the vehicle, or press or on the Remote Keyless Entry (RKE) transmitter.

Power Door Locks



: Press to unlock the doors.

: Press to lock the doors.

See *Power Door Locks on page 2-7*.

Liftgate

To lock or unlock the liftgate from inside, press or on the power door locks. See *Power Door Locks on page 2-7*.

To lock or unlock the liftgate from outside, press or on the Remote Keyless Entry (RKE) transmitter. See *Remote Keyless Entry (RKE) System Operation on page 2-3*.

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To open the liftgate, press the touch pad in the pull cup under the license plate and lift manually.

See *Liftgate on page 2-8*.

Windows

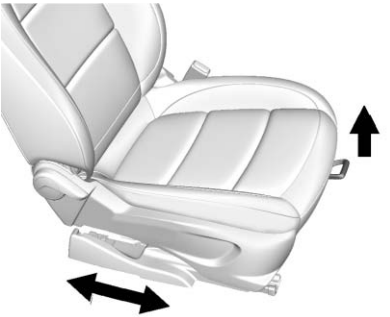


Press the switch to lower the window. Pull up on the front edge of the switch to raise it. See *Power Windows on page 2-14*.

The switches work when the vehicle is in ON/RUN or ACC/ ACCESSORY, or when Retained Accessory Power (RAP) is active. See *Retained Accessory Power (RAP) on page 9-19*.

Seat Adjustment

Manual Seats



To adjust a manual seat:

1. Pull the handle at the front of the seat.
2. Slide the seat to the desired position and release the handle.
3. Try to move the seat back and forth to be sure it is locked in place.

See *Seat Adjustment on page 3-3*.

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Power Seats



To adjust a power seat:

- Move the seat forward or rearward by sliding the control forward or rearward.
- Raise or lower the front part of the seat cushion by moving the front of the control up or down.
- Raise or lower the entire seat by moving the rear of the control up or down.

See *Power Seat Adjustment on page 3-4*.

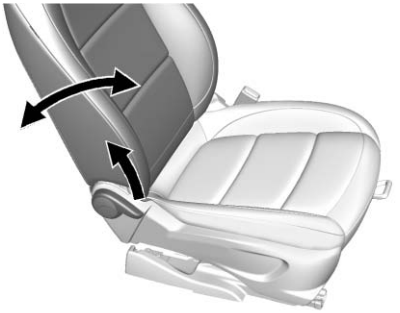
Lumbar Adjustment



If available, press the front or rear of the switch to increase or decrease lumbar support. Release the switch when the desired level of support is reached.

See *Lumbar Adjustment on page 3-4*.

Reclining Seatbacks



Manual Seat Shown, Power Seat Similar

To recline the seatback:

1. Lift the lever.

   If necessary, move the safety belt out of the way to access the lever.
2. Move the seatback to the desired position, then release the lever to lock the seatback in place.
3. Push and pull on the seatback to make sure it is locked.

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To return the seatback to an upright position:

1. Lift the lever fully without applying pressure to the seatback, and the seatback returns to the upright position.
2. Push and pull on the seatback to make sure it is locked.

See *Reclining Seatbacks on page 3-5*.

Memory Features



If available, the MEM, “1,” and “2” buttons on the outboard side of the driver seat are used to manually save and recall the driver seat and outside mirror positions. These manually stored positions are referred to as Button Memory positions.

The vehicle will also automatically save driver seat and outside mirror positions to the current driver Remote Keyless Entry (RKE) transmitter when the ignition is placed in OFF. These automatically stored positions are referred to as RKE Memory positions.

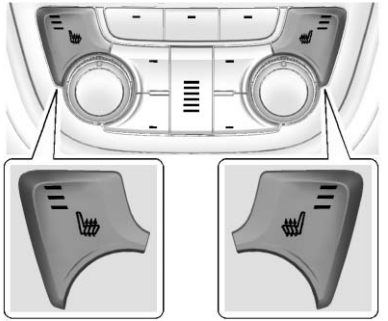
See *Memory Seats on page 3-6* and *Vehicle Personalization on page 5-31*.

Second Row Seats

The rear seatbacks can be folded down to increase cargo space.

See *Rear Seats on page 3-10*.

Heated Seats



If equipped, the controls are on the climate control panel. The engine must be running to operate the heated seats.

Press or to heat the driver or passenger seat cushion and seatback.

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Press the control once for the highest setting. With each press of the control, the heated seat will change to the next lower setting, and then the off setting. Three lights indicate the highest setting and one light the lowest.

See *Heated Front Seats on page 3-8*.

Head Restraint Adjustment

Do not drive until the head restraints for all occupants are installed and adjusted properly.

To achieve a comfortable seating position, change the seatback recline angle as little as necessary while keeping the seat and the head restraint height in the proper position.

See *Head Restraints on page 3-2* and *Seat Adjustment on page 3-3*.

Safety Belts



Refer to the following sections for important information on how to use safety belts properly:

- *Safety Belts on page 3-14*.
- *How to Wear Safety Belts Properly on page 3-15*.
- *Lap-Shoulder Belt on page 3-16*.
- *Lower Anchors and Tethers for Children (LATCH System) on page 3-43*.

Passenger Sensing System



United States



Canada and Mexico

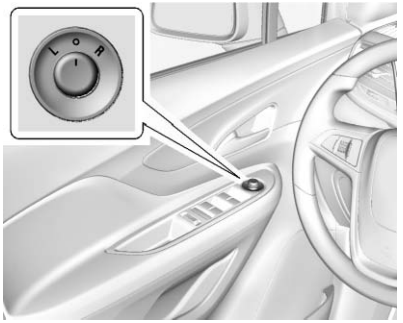
The passenger sensing system turns off the front outboard passenger frontal airbag and knee airbag under certain conditions. No other airbag is affected by the passenger sensing system. See *Passenger Sensing System on page 3-29* for important information.

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The passenger airbag status indicator will be visible on the instrument panel when the vehicle is started. See *Passenger Airbag Status Indicator on page 5-12*.

Mirror Adjustment

Exterior Mirrors



To adjust the mirrors:

1. Turn the selector switch to L (Left) or R (Right) to choose the driver or passenger mirror.
2. Move the control to adjust the mirror.
3. Turn the selector switch to ◯ to deselect the mirror.

Interior Mirror

Adjustment

Hold the rearview mirror in the center and move it to view the area behind the vehicle.

Manual Rearview Mirror

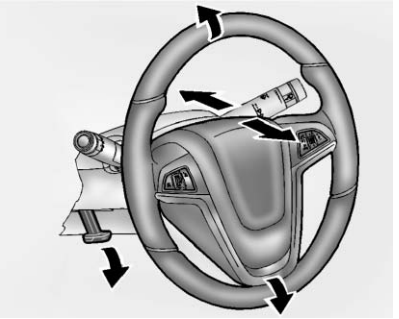
If equipped with a manual rearview mirror, push the tab forward for daytime use and pull it for nighttime use to avoid glare from the headlamps from behind. See *Manual Rearview Mirror on page 2-13*.

Automatic Dimming Rearview Mirror

If equipped with an automatic dimming rearview mirror, the mirror will automatically reduce the glare from the headlamps from behind. The dimming feature comes on when the vehicle is started.

See *Automatic Dimming Rearview Mirror on page 2-13*.

Steering Wheel Adjustment



To adjust the steering wheel:

1. Pull the lever down.
2. Move the steering wheel up or down.

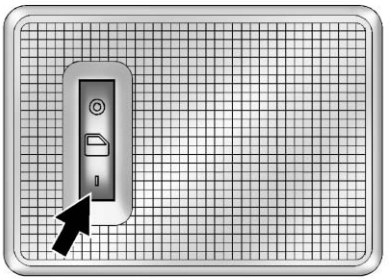
Information Provided by:
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3. Pull or push the steering wheel closer or away from you.
4. Lift the lever up to lock the steering wheel in place.

Do not adjust the steering wheel while driving.

Interior Lighting

Dome Lamps



The dome lamp controls are in the headliner above the rear seats.

◯ **:** Press to turn the lamps off, even when a door is open.

: When the button is returned to the middle position, the lamps turn on automatically when a door is opened.

: Press to turn on the dome lamps.

Reading Lamps

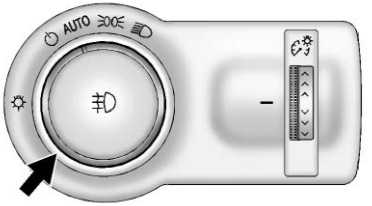


For vehicles with front reading lamps, they are in the overhead console.

or : Press to turn each lamp on or off.

For more information about interior lighting, see *Instrument Panel Illumination Control on page 6-5* or *Courtesy Lamps on page 6-5*.

Exterior Lighting



The exterior lamp control is to the left of the steering column on the instrument panel.

There are four positions:

⏻ **:** Briefly turn to this position to turn the automatic lamp control off or on again.

AUTO: Turns the headlamps on automatically at normal brightness, together with the parking lamps, taillamps, license plate lamps, sidemarker lamps, and instrument panel lights.

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: Turns on the parking lamps, taillamps, license plate lamps, sidemarker lamps, and instrument panel lights.

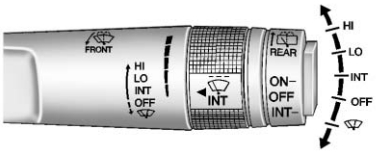
: Turns on the headlamps, parking lamps, taillamps, license plate lamps, sidemarker lamps, and instrument panel lights. A warning chime sounds if the driver door is opened when the ignition switch is off and the headlamps are on.

: For vehicles with fog lamps, press to turn the lamps on or off.

See:

- *Exterior Lamp Controls on page 6-1*
- *Daytime Running Lamps (DRL) on page 6-2*
- *Front Fog Lamps on page 6-4*

Windshield Wiper/Washer

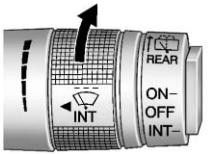


The windshield wiper/washer lever is located on the right side of the steering column.

Move the lever to one of the following positions:

HI: Use for fast wipes.

LO: Use for slow wipes.



INT: Move the lever up to INT for intermittent wipes, then turn the INT band up for more frequent wipes or down for less frequent wipes.

OFF: Use to turn the wipers off.

: For a single wipe, briefly move the wiper lever down. For several wipes, hold the wiper lever down.

: Pull the windshield wiper lever toward you to spray windshield washer fluid and activate the wipers.

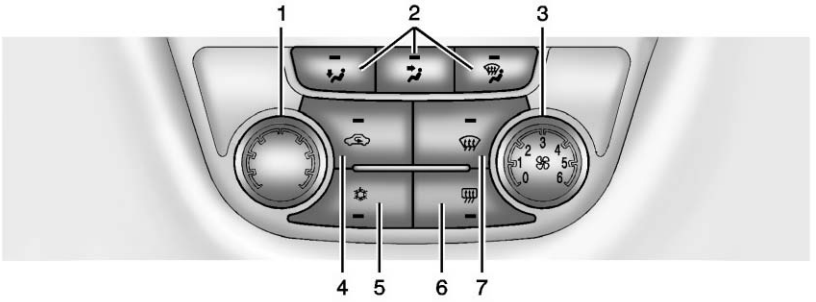
See *Windshield Wiper/Washer on page 5-3* and *Rear Window Wiper/Washer on page 5-4*.

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Climate Controls

The heating, cooling, defrosting, and ventilation for the vehicle can be controlled with these systems.

Climate Control System

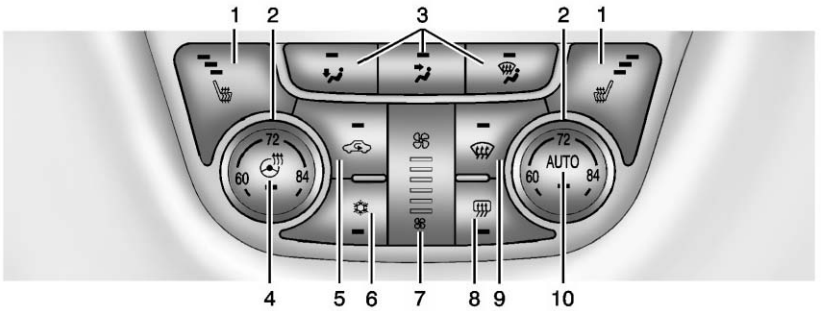


1. Temperature Control
2. Air Delivery Modes
3. Fan Control
4. Recirculation
5. Air Conditioning
6. Rear Window Defogger
7. Defrost

See *Climate Control Systems on page 8-1* (If Equipped).

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Dual Automatic Climate Control System



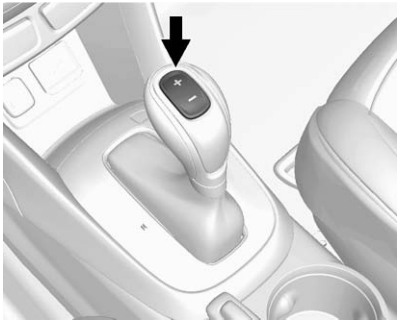
English Shown, Metric Similar

1. Driver and Passenger Heated Seats (If Equipped)
2. Driver and Passenger Temperature Controls
3. Air Delivery Modes
4. Heated Steering Wheel (If Equipped)
5. Recirculation
6. Air Conditioning
7. Fan Controls
8. Rear Window Defogger
9. Defrost
10. AUTO (Automatic Operation)

See *Dual Automatic Climate Control System on page 8-3* (If Equipped).

Transmission

Driver Shift Control (DSC)



DSC allows you to shift an automatic transmission similar to a manual transmission. To use the DSC feature:

1. Move the shift lever from D (Drive) rearward to M (Manual Mode).

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2. Press the + (plus) end of the button on the top of the shift lever to upshift, or push the − (minus) end of the button to downshift.

See *Manual Mode on page 9-25*.

Vehicle Features

Radio(s)

⏻ **/VOL:** Press to turn the system on and off. Turn to increase or decrease the volume.

RADIO/BAND: Press to choose between AM, FM, or XM (If Equipped).

TUNE/MENU: Turn to select radio stations. Press to select a menu.

⏮ **or** ⏭ **:** Press to seek the previous or next station or track.

Buttons 1–6: Press to save and select favorite stations.

INFO: Press to show available information about the current station or track.

For more information about these and other radio features, see *Operation on page 7-4*.

Storing a Station as a Favorite

Stations from all bands can be stored in the favorite lists in any order. Up to six stations can be stored in each favorite page and the number of available favorite pages can be set.

To store the station to a position in the list, press the corresponding numeric button 1–6 for more than two seconds.

For more information, see “Storing a Station as a Favorite” in *AM-FM Radio on page 7-7*.

Setting the Clock

To set the time and date:

1. Press the CONFIG button and select Time and Date Settings or press 🕘.
2. Select the desired feature.
3. Turn the TUNE/MENU knob to adjust the highlighted number.

Information Provided by: DEALER E-PROCESS

4. Press the center of the TUNE/MENU knob to select the next number.
5. To save and return to the Time and Date Settings menu, press ⇦ BACK at any time or press the TUNE/MENU knob after adjusting the value.
6. Repeat steps 2–5 for the remaining features.

Setting the 12/24 Hour Format

1. Press the CONFIG button and select Time and Date Settings or press 🕘.
2. Select Set Time Format.
3. Turn the TUNE/MENU knob to highlight the 12 hour or 24 hour display format.
4. Press the TUNE/MENU knob to select display format.

Portable Audio Devices

Some vehicles have a 3.5 mm (1/8 in) auxiliary input and a USB port located in the center console. External devices such as iPods®, laptop computers, MP3 players, CD changers, and USB drives may be connected, depending on the audio system.

See *Auxiliary Devices on page 7-13*.

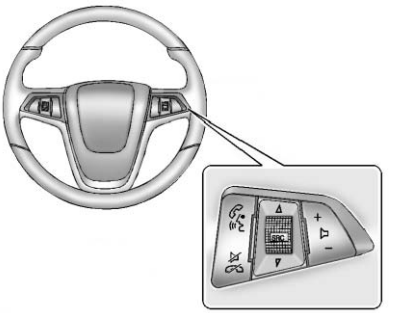
Bluetooth®

The Bluetooth® system allows users with a Bluetooth-enabled mobile phone to make and receive hands-free calls using the vehicle audio system and controls.

The Bluetooth-enabled mobile phone must be paired with the in-vehicle Bluetooth system before it can be used in the vehicle. Not all phones will support all functions.

See *Bluetooth on page 7-16*.

Steering Wheel Controls



Some audio controls can be adjusted at the steering wheel.

📞 / 🎙: For vehicles with Bluetooth, OnStar, press to interact with those systems. See *Bluetooth on page 7-16*, *OnStar Overview on page 14-1*, or the infotainment manual.

Information Provided by: DEALER E-PROCESS

/ : Press to silence the vehicle speakers only. Press again to turn the sound on. For vehicles with OnStar or Bluetooth systems, press to reject an incoming call, or to end a current call.

SRC : Press the thumbwheel inward to change the audio source.

Move the thumbwheel up or down to select the next or previous favorite radio station, CD, or MP3 track.

+ −: Press + to increase or − to decrease the volume.

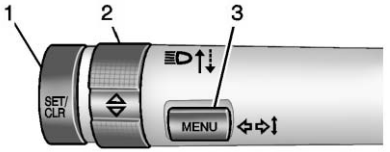
For more information, see *Steering Wheel Controls on page 5-2*.

Infotainment System

See the infotainment manual for information on the radio, audio players, phone, navigation system, and voice or speech recognition. There is also information on settings and downloadable applications (if equipped).

Driver Information Center (DIC)

The DIC display is in the instrument cluster. It shows the status of many vehicle systems. The controls for the DIC are on the turn signal lever.



1. **SET/CLR:** Press to set or clear the menu item displayed.
2. **:** Turn the band to scroll through the menu items.
3. **MENU:** Press to display the DIC menus. This button is also used to return to or exit the last screen displayed on the DIC.

See *Driver Information Center (DIC) on page 5-22*.

Rear Vision Camera (RVC)

If available, the RVC displays a view of the area behind the vehicle when the vehicle is shifted into R (Reverse). The display will appear on the radio screen.

To clean the camera lens above the license plate, rinse it with water and wipe it with a soft cloth.

See *Rear Vision Camera (RVC) on page 9-38*.

Ultrasonic Parking Assist

If available, Ultrasonic Front and Rear Parking Assist (UFRPA) uses sensors on the front and rear bumpers to detect objects while parking the vehicle. It operates at speeds less than 8 km/h (5 mph). UFRPA uses audio beeps to provide distance and system information.

Information Provided by:
DEALER E-PROCESS

Keep the sensors on the vehicle's front and rear bumpers clean to ensure proper operation.

See *Ultrasonic Parking Assist on page 9-36* for more information.

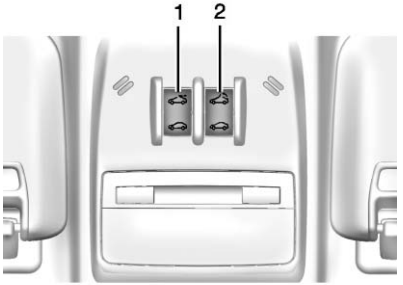
Power Outlets

The accessory power outlet can be used to plug in electrical equipment, such as a cell phone or MP3 player.

There is one accessory power outlet on the center stack below the climate control. This outlet is powered when the key is in ON/RUN or ACC/ACCESSORY, or until the driver door is opened within 10 minutes of turning off the vehicle. See *Retained Accessory Power (RAP) on page 9-19*.

See *Power Outlets on page 5-6*.

Sunroof



If equipped, the sunroof only operates when the ignition is turned to ON/RUN or Retained Accessory Power (RAP) is active.

Open/Close: Press and hold the front or rear of switch (1) to open or close the sunroof.

Vent: Press and hold the front or rear of switch (2) to vent or close the sunroof.

Manually close the sunshade.

The sunroof will not operate if the vehicle has an electrical failure. If problems persist, see your dealer.

See *Sunroof on page 2-16*.

Information Provided by:
DEALER E-PROCESS

Performance and Maintenance

Traction Control System (TCS)

The traction control system limits wheel spin. The system is on when the vehicle is started.

- To turn off traction control, press and release OFF on the center stack. TC illuminates in the instrument cluster and the appropriate message is displayed in the Driver Information Center (DIC).
- Press and release OFF again to turn traction control back on.

See *Traction Control System (TCS) on page 9-28*.

StabiliTrak® System

The StabiliTrak system assists with directional control of the vehicle in difficult driving conditions. The system is on when the vehicle is started.

- To turn off both Traction Control and StabiliTrak, press and hold OFF until OFF and TC illuminate in the instrument cluster. The appropriate message will display in the DIC.
- Press OFF again to turn on both systems.

StabiliTrak will automatically turn back on when the vehicle speed exceeds 50 km/h (31 mph).

See *StabiliTrak® System on page 9-30*.

Tire Pressure Monitor

This vehicle may have a Tire Pressure Monitor System (TPMS).



The low tire pressure warning light alerts to a significant loss in pressure of one of the vehicle's tires. If the warning light comes on, stop as soon as possible and inflate the tires to the recommended pressure shown on the Tire and Loading Information label. See *Vehicle Load Limits on page 9-10*. The warning light will remain on until the tire pressure is corrected.

The low tire pressure warning light may come on in cool weather when the vehicle is first started, and then turn off as the vehicle is driven. This may be an early indicator that the tire pressures are getting low and the tires need to be inflated to the proper pressure.

Information Provided by: DEALER E-PROCESS

The TPMS does not replace normal monthly tire maintenance. Maintain the correct tire pressures.

See *Tire Pressure Monitor System on page 10-43*.

Engine Oil Life System

The engine oil life system calculates engine oil life based on vehicle use and displays the CHANGE ENGINE OIL SOON DIC message when it is necessary to change the engine oil and filter.

Remember, the oil life display must be reset after each oil change. It will not reset itself. Also, be careful not to reset the oil life display accidentally at any time other than when the oil has just been changed. It cannot be reset accurately until the next oil change.

Resetting the Oil Life System

1. Press the MENU button to show Remaining Oil Life on the display. This display shows an estimate of the oil's remaining useful life. If 99% is displayed, that means that 99% of the current oil life remains.
2. To reset the engine oil life system, press the SET/CLR button while the oil life display is active. After a few seconds, there will be a single chime and the oil life will be reset to 100%.

Be careful not to reset the oil life display accidentally at any time other than after the oil is changed. It cannot be reset accurately.

See *Engine Oil Life System on page 10-9*.

Driving for Better Fuel Economy

Driving habits can affect fuel mileage. Here are some driving tips to get the best fuel economy possible.

- Avoid fast starts and accelerate smoothly.
- Brake gradually and avoid abrupt stops.
- Avoid idling the engine for long periods of time.
- When road and weather conditions are appropriate, use cruise control.
- Always follow posted speed limits or drive more slowly when conditions require.
- Keep vehicle tires properly inflated.

Information Provided by:
DEALER E-PROCESS

- Combine several trips into a single trip.
- Replace the vehicle's tires with the same TPC Spec number molded into the tire's sidewall near the size.
- Follow recommended scheduled maintenance.

Roadside Assistance Program

U.S.: 1-800-252-1112

TTY Users (U.S. Only): 1-888-889-2438

Canada: 1-800-268-6800

Mexico: 01-800-466-0818

As the owner of a new Buick, you are automatically enrolled in the Roadside Assistance program.

See *Roadside Assistance Program (Mexico) on page 13-7* or *Roadside Assistance Program (U.S. and Canada) on page 13-11*.

OnStar®

If equipped, this vehicle has a comprehensive, in-vehicle system that can connect to a live Advisor for Emergency, Security, Navigation, Connection, and Diagnostic Services. See *OnStar Overview on page 14-1*.

Information Provided by: DEALER E-PROCESS

✍ NOTES

Information Provided by
DEALER E-PROCESS

Keys, Doors, and Windows

Keys and Locks
Keys 2-1
Remote Keyless Entry (RKE) System 2-2
Remote Keyless Entry (RKE) System Operation 2-3
Remote Vehicle Start 2-5
Door Locks 2-6
Power Door Locks 2-7
Automatic Door Locks 2-7
Safety Locks 2-7

Doors
Liftgate 2-8

Vehicle Security
Vehicle Security 2-9
Vehicle Alarm System 2-9
Immobilizer 2-10
Immobilizer Operation 2-10

Exterior Mirrors
Convex Mirrors 2-11
Power Mirrors 2-11
Folding Mirrors 2-12
Heated Mirrors 2-12
Blind Spot Mirrors 2-12
Reverse Tilt Mirrors 2-13

Interior Mirrors
Manual Rearview Mirror 2-13
Automatic Dimming Rearview Mirror 2-13

Windows
Windows 2-14
Power Windows 2-14
Sun Visors 2-16

Roof
Sunroof 2-16

Keys and Locks

Keys

⚠ WARNING

Leaving children in a vehicle with the ignition key is dangerous and children or others could be seriously injured or killed. They could operate the power windows or other controls or make the vehicle move. The windows will function with the keys in the ignition, and children or others could be caught in the path of a closing window. Do not leave children in a vehicle with the ignition key.

Information Provided by: DEALER E-PROCESS



The key that is part of the Remote Keyless Entry (RKE) transmitter can be used for the ignition and all locks.



Press the key release button on the RKE transmitter to extend the key blade. Press the button and the key blade to retract the key.

The key code is stamped on the key number plate and can be used to make new keys at any dealer. Store this information in a safe place outside the vehicle.

If it becomes difficult to turn the key in the ignition, inspect the key blade for debris. Periodically clean with a brush or pick.

See your dealer if a new key is needed.

Information Provided by: DEALER E-PROCESS

If locked out of the vehicle, see *Roadside Assistance Program (Mexico) on page 13-7* or *Roadside Assistance Program (U.S. and Canada) on page 13-11*.

With an active OnStar subscription, an OnStar Advisor may remotely unlock the vehicle. See *OnStar Overview on page 14-1*.

Remote Keyless Entry (RKE) System

See *Radio Frequency Statement on page 13-20* for information regarding Part 15 of the Federal Communications Commission (FCC) rules and Industry Canada Standards RSS-GEN/210/220/310.

If there is a decrease in the RKE operating range:

- Check the distance. The transmitter may be too far from the vehicle.
- Check the location. Other vehicles or objects may be blocking the signal.

- Check the transmitter's battery. See “Battery Replacement” later in this section.
- If the transmitter is still not working correctly, see your dealer or a qualified technician for service.

Remote Keyless Entry (RKE) System Operation

The RKE transmitter may work up to 30 m (98 ft) away from the vehicle.

Other conditions can affect the performance of the transmitter. See *Remote Keyless Entry (RKE) System on page 2-2*.



The following may be available:

(Lock): Press to lock all doors or, if equipped, a locking fuel door.

The turn signal indicators may flash and/or the horn may sound to indicate locking. See “Remote Lock/Unlock/Start” under *Vehicle Personalization on page 5-31*.

If the driver door is open when is pressed and Unlocked Door Anti Lock Out is enabled through vehicle personalization, all doors will lock and then the driver door will unlock. See “Remote Lock/Unlock/Start” under *Vehicle Personalization on page 5-31*.

Pressing may also arm the theft-deterrent system. See *Vehicle Alarm System on page 2-9*.

(Unlock): Press to unlock the driver door, all doors or, if equipped, a locking fuel door. See “Remote Lock/Unlock/Start” under *Vehicle Personalization on page 5-31*.

The hazard warning flashers will flash twice and/or the horn may sound to indicate unlocking. See “Remote Lock/Unlock/Start” under *Vehicle Personalization on page 5-31*.

Pressing will disarm the theft-deterrent system. See *Vehicle Alarm System on page 2-9*.

(Vehicle Locator/Panic Alarm): If equipped, press and hold briefly to initiate vehicle locator. The exterior lamps flash and the horn chirps three times.

Information Provided by: DEALER E-PROCESS

Press and hold for at least three seconds to sound the panic alarm. The horn sounds and the turn signals flash for 30 seconds, or until is pressed again or the key is placed in the ignition and turned to ACC/ACCESSORY or ON/RUN.

(Remote Vehicle Start):

If equipped, press and then press and hold to start the engine from outside the vehicle using the RKE transmitter. See *Remote Vehicle Start on page 2-5*.

The buttons on the keys are disabled when there is a key in the ignition.

Programming Transmitters to the Vehicle

Only RKE transmitters programmed to this vehicle will work. If a transmitter is lost or stolen, a replacement can be purchased and programmed through your dealer. When the replacement transmitter is programmed to this vehicle, all remaining transmitters must also be reprogrammed. Any lost or stolen transmitters will no longer work once the new transmitter is programmed.

Battery Replacement

The battery is not rechargeable. To replace the battery:

Notice: **When replacing the battery, do not touch any of the circuitry on the transmitter. Static from your body could damage the transmitter.**



1. Extend the key blade and open the battery cover on the back of the transmitter by prying with a finger.
2. Remove the used battery by pushing on the battery and sliding it toward the key blade.
3. Insert the new battery, positive side facing up. Push the battery down until it is held in place. Replace with a CR2032 or equivalent battery.
4. Snap the battery cover back on to the transmitter.

Information Provided by: DEALER E-PROCESS

Remote Vehicle Start

The vehicle may have this feature that allows you to start the engine from outside the vehicle.

(Remote Vehicle Start): This button will be on the RKE transmitter if the vehicle has remote start.

The climate control system will use the previous settings during a remote start. The rear defog may come on during remote start based on cold ambient conditions. The rear fog indicator light does not come on during remote start. If the vehicle has heated seats, they may come on during a remote start. See *Heated Front Seats on page 3-8*.

Laws in some local communities may restrict the use of remote starters. For example, some laws require a person using remote start to have the vehicle in view. Check local regulations for any requirements.

Other conditions can affect the performance of the transmitter. See *Remote Keyless Entry (RKE) System on page 2-2*.

Starting the Vehicle

To start the engine using the remote start feature:

1. Aim the RKE transmitter at the vehicle.
2. Press and release .
3. Immediately after completing Step 2, press and hold for several seconds or until the turn signal lamps flash. The turn signal lamps flashing confirms the request to remote start the vehicle has been received.

When the engine starts, the parking lamps will turn on and remain on as long as the engine is running. The doors will be locked and the climate control system may come on.

The engine will continue to run for 10 minutes. Repeat the steps for a 10-minute time extension. Remote start can be extended only once.

Start the vehicle before driving.

Extending Engine Run Time

For a 10-minute extension, repeat Steps 1–3 while the engine is still running. The remote start can be extended once.

When the remote start is extended, the second 10 minutes will start immediately.

For example, if the engine has been running for five minutes, and 10 minutes are added, the engine will run for a total of 15 minutes.

A maximum of two remote starts, or a single start with an extension, is allowed between ignition cycles.

The vehicle's ignition must be turned on and then back off before the remote start procedure can be used again.

Information Provided by: DEALER E-PROCESS

Canceling a Remote Start

To cancel a remote start, do one of the following:

- Aim the RKE transmitter at the vehicle and press and hold ⟳ until the parking lamps turn off.
- Turn on the hazard warning flashers.
- Turn the vehicle on and then off.

Conditions in Which Remote Start Will Not Work

The remote vehicle start feature will not operate if:

- The key is in the ignition (key access) or if the key is in the vehicle (keyless access).
- The hood is not closed.
- The hazard warning flashers are on.
- The malfunction indicator lamp is on.
- The engine coolant temperature is too high.
- The oil pressure is low.
- Two remote vehicle starts, or a single remote start with an extension, have already been used.
- The vehicle is not in P (Park).

Door Locks

⚠ WARNING

Unlocked doors can be dangerous.

- Passengers, especially children, can easily open the doors and fall out of a moving vehicle. When a door is locked, the handle will not open it. The chance of being thrown out of the vehicle in a crash is increased if the doors are not locked. So, all passengers should wear safety belts properly and the

(Continued)

WARNING (Continued)

doors should be locked whenever the vehicle is driven.

- Young children who get into unlocked vehicles may be unable to get out. A child can be overcome by extreme heat and can suffer permanent injuries or even death from heat stroke. Always lock the vehicle whenever leaving it.
- Outsiders can easily enter through an unlocked door when you slow down or stop the vehicle. Locking the doors can help prevent this from happening.

To lock or unlock a door manually:

- From the inside, to lock the door, use the lock knob on the top of the door panel.

Information Provided by: DEALER E-PROCESS

- From the outside, turn the key toward the front or rear of the vehicle, or press or on the Remote Keyless Entry (RKE) transmitter.

Power Door Locks



(Unlock): Press to unlock the doors.

(Lock): Press to lock the doors.

Power door locks features can be programmed. See *Vehicle Personalization on page 5-31*.

Automatic Door Locks

Automatic Door Lock

The doors are programmed to automatically lock when the shift lever is moved out of P (Park).

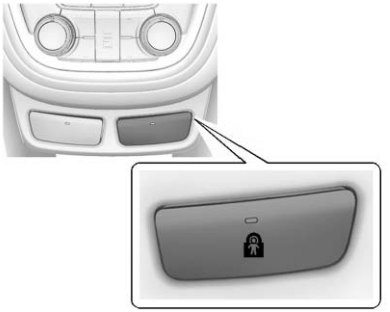
The automatic door lock feature cannot be disabled.

Automatic Door Unlock

The doors will automatically unlock when the shift lever is moved into P (Park).

See *Vehicle Personalization on page 5-31*.

Safety Locks



The rear door safety locks prevent passengers from opening the rear doors from inside the vehicle. The safety lock switch is on the center stack.

Information Provided by: DEALER E-PROCESS

Press to activate the rear door safety locks. The indicator light in the switch will illuminate.

Press again to deactivate the safety locks.

If an inside rear door handle is pulled when the safety lock is activated, that door will remain locked and the indicator light may flash. Release the handle, then deactivate the safety locks to allow the door to open from the inside.

Doors

Liftgate

⚠ WARNING

Exhaust gases can enter the vehicle if it is driven with the liftgate, trunk/hatch open, or with any objects that pass through the seal between the body and the trunk/hatch or liftgate. Engine exhaust contains carbon monoxide (CO) which cannot be seen or smelled. It can cause unconsciousness and even death.

If the vehicle must be driven with the liftgate or trunk/hatch open:

- Close all of the windows.
- Fully open the air outlets on or under the instrument panel.

(Continued)

WARNING (Continued)

- Adjust the climate control system to a setting that brings in only outside air and set the fan speed to the highest setting. See “Climate Control Systems” in the Index.
- If the vehicle is equipped with a power liftgate, disable the power liftgate function.

For more information about carbon monoxide, see *Engine Exhaust on page 9-22*.

Notice: **To avoid damage to the liftgate or liftgate glass, make sure the area above and behind the liftgate is clear before opening it.**

To lock or unlock the liftgate from inside, press or on the power door locks. See *Power Door Locks on page 2-7*.

Information Provided by: DEALER E-PROCESS

To lock or unlock the liftgate from outside, press or on the RKE transmitter. See *Remote Keyless Entry (RKE) System Operation on page 2-3*.



To open the liftgate, press the touch pad in the pull cup below the license plate and lift manually.

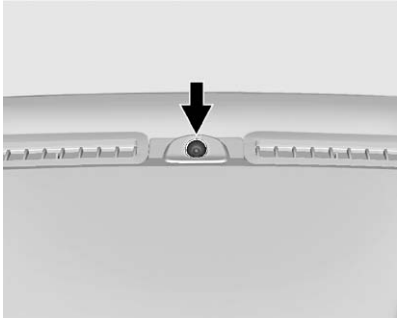
To close the liftgate, push from the center to ensure that it fully latches.

Vehicle Security

This vehicle has theft-deterrent features; however, they do not make the vehicle impossible to steal.

Vehicle Alarm System

If equipped with an anti-theft alarm system, the indicator light, on the instrument panel near the windshield, shows the status of the system.



Arming the System

1. Close all doors, the hood, and the liftgate.
2. Lock the vehicle using the transmitter or the power door lock button with the door open. The indicator light on the instrument panel should come on and flash for about 30 seconds.
3. After 30 seconds, or if the button on the transmitter is pressed twice, the alarm system will arm, and the indicator light will begin to slowly flash to show that the alarm is operating.

If any door or the hood is opened without first unlocking with the transmitter, the turn signals will flash and the horn will sound for about 30 seconds. The alarm system will then re-arm to monitor for the next unauthorized event.

The theft-deterrent alarm system will not activate if the doors are locked with the key.

Information Provided by: DEALER E-PROCESS

Disarming the System

To disarm the system, either unlock the doors using the transmitter, or start the vehicle.

To avoid setting off the alarm by accident:

- Lock the vehicle with the transmitter after all occupants have left the vehicle and all doors are closed.
- Always unlock a door with the transmitter. Unlocking the driver door with the backup key will not disarm the alarm.

If you set off the alarm by accident, turn off the alarm by pressing on the transmitter, or start the vehicle with a recognized transmitter in the vehicle. The alarm will not stop if you unlock the driver door with the key.

How to Detect a Tamper Condition

If is pressed and the horn chirps three times, an attempted break-in has occurred while the system was armed.

Immobilizer

See *Radio Frequency Statement on page 13-20* for information regarding Part 15 of the Federal Communications Commission (FCC) rules and Industry Canada Standards RSS-GEN/210/220/310.

Immobilizer Operation

This vehicle has a passive theft-deterrent system.

The system does not have to be manually armed or disarmed.

The vehicle is automatically immobilized when the key is removed from the ignition.

The system is automatically disarmed when the vehicle is started with the correct key. The key uses a transponder that matches an immobilizer control unit in the vehicle and automatically disarms the system. Only an authorized key starts the vehicle. The vehicle may not start if the key is damaged.



The security light in the instrument cluster comes on if there is a problem with arming or disarming the theft-deterrent system.

When trying to start the vehicle, the security light comes on briefly when the ignition is turned on.

If the engine does not start and the security light stays on, there is a problem with the system. Turn the ignition off and try again.

Information Provided by: DEALER E-PROCESS

If the engine still does not start, and the key appears to be undamaged or the light continues to stay on, try another ignition key. If the engine does not start with the other key, the vehicle needs service. If the vehicle does start, the first key may be damaged. See your dealer who can service the theft-deterrent system and have a new key made.

Do not leave the key or device that disarms or deactivates the theft-deterrent system in the vehicle.

Exterior Mirrors

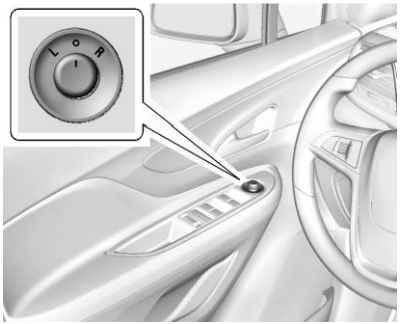
Convex Mirrors

⚠ WARNING

A convex mirror can make things, like other vehicles, look farther away than they really are. If you cut too sharply into the right lane, you could hit a vehicle on the right. Check the inside mirror or glance over your shoulder before changing lanes.

The passenger side mirror is convex shaped. A convex mirror's surface is curved so more can be seen from the driver seat.

Power Mirrors



To adjust the mirrors:

1. Turn the selector switch to L (Left) or R (Right) to choose the driver or passenger mirror.
2. Move the control to adjust the mirror.
3. Turn the selector switch to ◯ to deselect the mirror.

If equipped with folding mirrors and heated mirrors, see *Folding Mirrors on page 2-12* and *Heated Mirrors on page 2-12*.

Information Provided by: DEALER E-PROCESS

Folding Mirrors

Manual Folding Mirrors

These mirrors can be folded inward to prevent damage when going through an automatic car wash. To fold, pull the mirror toward the vehicle. Push the mirror outward to return it to the original position.

Heated Mirrors

This vehicle has heated mirrors:

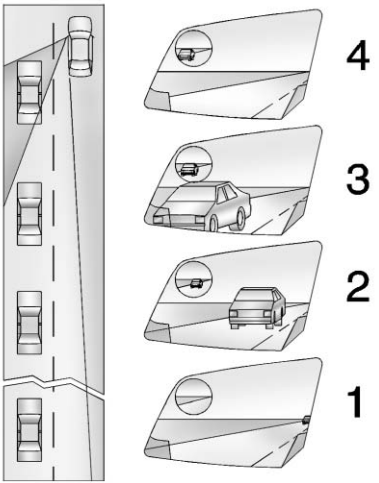
(Rear Window Defogger): Press to heat the mirrors.

See “Rear Window Defogger” under *Climate Control Systems on page 8-1*.

Blind Spot Mirrors

The blind spot mirror is a small convex mirror built into the upper and outer corner of both outside mirrors. It can show objects that may be in the vehicle's blind zone.

Driving with the Blind Spot Mirror



Actual Mirror View

1. When the approaching vehicle is a long distance away, the image in the main mirror is small and near the inboard edge of the mirror.
2. As the vehicle gets closer, the image in the main mirror gets larger and moves outboard.
3. As the vehicle enters the blind zone, the image transitions from the main mirror to the blind spot mirror.
4. When the vehicle is in the blind zone, the image only appears in the blind spot mirror.

Using the Outside Mirror with the Blind Spot Mirror

1. Set the main mirror so that the side of the vehicle can just be seen and the blind spot mirror has an unobstructed view.
2. When checking for traffic or before changing a lane, look at the main driver/passenger side mirror to observe traffic in the adjacent lane, behind your

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vehicle. Check the blind spot mirror for a vehicle in the blind zone. Then, glance over your shoulder to double check before moving slowly into the adjacent lane.

Reverse Tilt Mirrors

If equipped with the memory package, the outside mirrors have a reverse tilt feature. This feature tilts the outside mirrors to a preselected position when the vehicle is in R (Reverse). This allows the driver to view the curb for parallel parking.

The passenger and/or driver mirror returns to its original position when the vehicle is shifted out of R (Reverse), or the ignition is turned off or to OFF/LOCK.

This feature can be turned on or off through the Driver Information Center (DIC). See *Vehicle Personalization on page 5-31*.

Interior Mirrors

Manual Rearview Mirror

Hold the rearview mirror in the center and move it to view the area behind the vehicle.

For vehicles with a manual rearview mirror, push the tab forward for daytime use and pull it for nighttime use to avoid glare from the headlamps from behind.

Vehicles with OnStar have three control buttons at the bottom of the mirror. See your dealer for more information about OnStar and how to subscribe to it. See *OnStar Overview on page 14-1*.

Automatic Dimming Rearview Mirror

To adjust the inside rearview mirror, hold the rearview mirror in the center and move it to view the area behind the vehicle.

For vehicles with an automatic dimming rearview mirror, the mirror will automatically reduce the glare from the headlamps from behind. The dimming feature and the indicator light come on when the vehicle is started.

Vehicles with OnStar have three control buttons at the bottom of the mirror. See your dealer for more information about OnStar and how to subscribe to it. See *OnStar Overview on page 14-1*.

Cleaning the Mirror

Do not spray glass cleaner directly on the mirror. Use a soft towel dampened with water.

Information Provided by: DEALER E-PROCESS

Windows

⚠ WARNING

Never leave a child, a helpless adult, or a pet alone in a vehicle, especially with the windows closed in warm or hot weather. They can be overcome by the extreme heat and suffer permanent injuries or even death from heat stroke.



The vehicle aerodynamics are designed to improve fuel economy performance. This may result in a pulsing sound when either rear window is down and the front windows are up. To reduce the sound, open either a front window or the sunroof, if equipped.

Power Windows

⚠ WARNING

Children could be seriously injured or killed if caught in the path of a closing window. Never leave keys in a vehicle with children. When there are children in the rear seat, use the window lockout button to prevent operation of the windows. See *Keys on page 2-1*.



The driver door also has switches that control the passenger and rear windows. The switches work when the vehicle is in ON/RUN or ACC/ ACCESSORY, or when Retained Accessory Power (RAP) is active. See *Retained Accessory Power (RAP) on page 9-19*.

Press the switch to lower the window. Pull up on the front edge of the switch to raise it.

Information Provided by: DEALER E-PROCESS

Express-Up/Express-Down Windows

If equipped, a window with the express-up/down feature can be raised or lowered without holding the switch. Press or pull the window switch fully and release it to activate the express feature. The express mode can be canceled by pressing or pulling the switch.

Programming the Power Windows

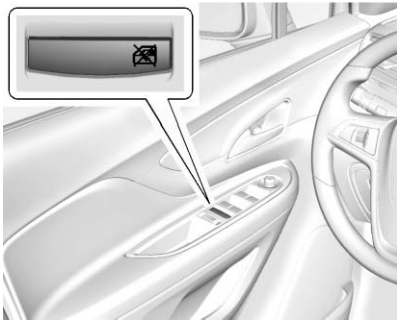
If the battery on the vehicle has been recharged, disconnected, or replaced, windows with the express-up feature need to be reprogrammed for this feature to work. To program the window:

1. Close all doors with the ignition in ON/RUN or ACC/ ACCESSORY, or when RAP is active. See *Retained Accessory Power (RAP) on page 9-19*.
2. Press and continue to hold the window switch until the window is fully open.
3. Pull up and hold the window switch to close the window. Continue to hold it briefly after the window is fully closed.
4. Repeat for each window that has the express-up feature.

Anti-Pinch Feature

The anti-pinch feature is on windows with the express-up feature. If an object is in the way of the window as it is express-closing, or in certain weather conditions like severe icing, the window will stop and open to a factory preset position. The window functions normally once the obstruction is removed.

Rear Window Lockout



The rear window lockout feature prevents the rear passenger windows from operating, except from the driver position.

Press to activate the rear window lockout switch. The indicator light comes on when activated.

Press again to deactivate the lockout switch.

Information Provided by: DEALER E-PROCESS

Sun Visors

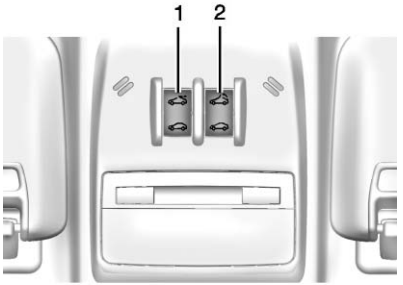
Pull the sun visor down to block glare. Detach the sun visor from the center mount to pivot to the side window.

Close the mirror cover when driving.

If equipped, the vanity mirror lamp comes on when opening the mirror cover.

Roof

Sunroof



If equipped, the sunroof only operates when the ignition is turned to ON/RUN or Retained Accessory Power (RAP) is active.

Open/Close: Press and hold the front or rear of switch (1) to open or close the sunroof.

Vent: Press and hold the front or rear of switch (2) to vent or close the sunroof.

Express-Open/Express-Close: To express-open or express-close the sunroof, fully press and release the front or rear of switch (1) until the sunroof reaches the desired position.

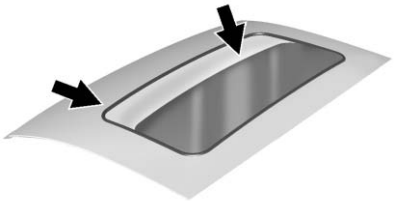
Manually close the sunshade.

The sunroof will not operate if the vehicle has an electrical failure.

Anti-Pinch Feature

If an object is in the path of the sunroof when it is closing, the anti-pinch feature will detect the object and stop the sunroof from closing at the point of the obstruction. The sunroof then returns to the full-open position.

Information Provided by:
DEALER E-PROCESS



Dirt and debris may collect on the sunroof seal or in the track. This could cause an issue with sunroof operation or noise. It could also plug the water drainage system. Periodically open the sunroof and remove any obstacles or loose debris. Wipe the sunroof seal and roof sealing area using a clean cloth, mild soap, and water. Do not remove grease from the sunroof.

Information Provided by:
DEALER E-PROCESS

✍ NOTES

Information Provided by
DEALER E-PROCESS

Seats and Restraints

Head Restraints
Head Restraints 3-2

Front Seats
Seat Adjustment 3-3
Power Seat Adjustment 3-4
Lumbar Adjustment 3-4
Reclining Seatbacks 3-5
Memory Seats 3-6
Front Seat Armrest 3-8
Heated Front Seats 3-8
Folding Seatback 3-9

Rear Seats
Rear Seats 3-10
Rear Seat Armrest 3-14

Safety Belts
Safety Belts 3-14
How to Wear Safety Belts Properly 3-15
Lap-Shoulder Belt 3-16
Safety Belt Use During Pregnancy 3-21
Safety Belt Extender 3-21
Safety System Check 3-22
Safety Belt Care 3-22
Replacing Safety Belt System Parts after a Crash 3-22

Airbag System
Airbag System 3-23
Where Are the Airbags? 3-25
When Should an Airbag Inflate? 3-26
What Makes an Airbag Inflate? 3-27
How Does an Airbag Restrain? 3-28
What Will You See after an Airbag Inflates? 3-28
Passenger Sensing System 3-29
Servicing the Airbag-Equipped Vehicle 3-33
Adding Equipment to the Airbag-Equipped Vehicle . . . 3-34
Airbag System Check 3-34
Replacing Airbag System Parts after a Crash 3-35

Child Restraints
Older Children 3-35
Infants and Young Children 3-37
Child Restraint Systems 3-40
Where to Put the Restraint . . . 3-41
Lower Anchors and Tethers for Children (LATCH System) 3-43
Replacing LATCH System Parts After a Crash 3-48
Securing Child Restraints (Rear Seat) 3-48
Securing Child Restraints (Front Passenger Seat) 3-51

Information Provided by: DEALER E-PROCESS

Head Restraints

⚠ WARNING

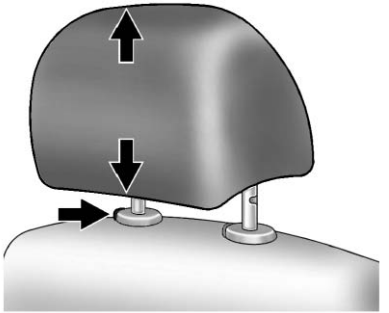
With head restraints that are not installed and adjusted properly, there is a greater chance that occupants will suffer a neck/spinal injury in a crash. Do not drive until the head restraints for all occupants are installed and adjusted properly.

Front Seats

The front seats have adjustable head restraints in the outboard seating positions.



Adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head. This position reduces the chances of a neck injury in a crash.



The height of the head restraint can be adjusted. Pull the head restraint up to raise it. Try to move the head restraint to make sure that it is locked in place.

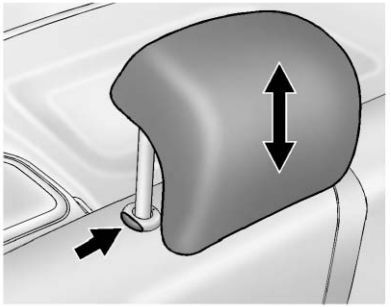
To lower the head restraint, press the button, located on the top of the seatback, and push the head restraint down. Try to move the head restraint after the button is released to make sure that it is locked in place.

The front seat outboard head restraints are not designed to be removed.

Information Provided by: DEALER E-PROCESS

Rear Seats

The vehicle's rear seats have adjustable head restraints in the outboard seating positions.



The height of the head restraint can be adjusted. Pull the head restraint up to raise it. Try to move the head restraint to make sure that it is locked in place.

To lower the head restraint, press the button, located on the top of the seatback, and push the head restraint down. Try to move the head restraint after the button is released to make sure that it is locked in place.

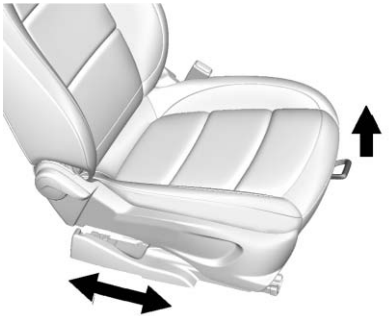
Rear outboard head restraints are not designed to be removed.

Front Seats

Seat Adjustment

⚠ WARNING

You can lose control of the vehicle if you try to adjust a driver seat while the vehicle is moving. Adjust the driver seat only when the vehicle is not moving.



Information Provided by: DEALER E-PROCESS

To adjust a manual seat:

1. Pull the handle at the front of the seat.
2. Slide the seat to the desired position and release the handle.
3. Try to move the seat back and forth to be sure it is locked in place.

Power Seat Adjustment



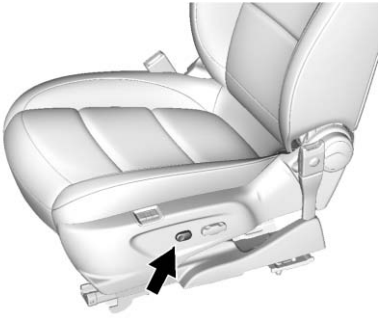
To adjust a power seat:

- Move the seat forward or rearward by sliding the control forward or rearward.
- Raise or lower the front part of the seat cushion by moving the front of the control up or down.
- Raise or lower the entire seat by moving the rear of the control up or down.

To adjust the seatback, see *Reclining Seatbacks on page 3-5*.

To adjust the lumbar support, see *Lumbar Adjustment on page 3-4*.

Lumbar Adjustment



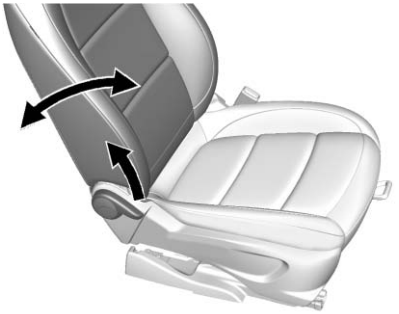
If available, press the front or rear of the switch to increase or decrease lumbar support. Release the switch when the desired level of support is reached.

Information Provided by:
DEALER E-PROCESS

Reclining Seatbacks

⚠ WARNING

If either seatback is not locked, it could move forward in a sudden stop or crash. That could cause injury to the person sitting there. Always push and pull on the seatbacks to be sure they are locked.



Manual Seat Shown, Power Seat Similar

To recline the seatback:

1. Lift the lever.

   If necessary, move the safety belt out of the way to access the lever.
2. Move the seatback to the desired position, then release the lever to lock the seatback in place.
3. Push and pull on the seatback to make sure it is locked.

To return the seatback to an upright position:

1. Lift the lever fully without applying pressure to the seatback, and the seatback returns to the upright position.
2. Push and pull on the seatback to make sure it is locked.

⚠ WARNING

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the safety belts cannot do their job.

The shoulder belt will not be against your body. Instead, it will be in front of you. In a crash, you could go into it, receiving neck or other injuries.

(Continued)

Information Provided by: DEALER E-PROCESS

WARNING (Continued)

The lap belt could go up over your abdomen. The belt forces would be there, not at your pelvic bones. This could cause serious internal injuries.

For proper protection when the vehicle is in motion, have the seatback upright. Then sit well back in the seat and wear the safety belt properly.



Do not have a seatback reclined if the vehicle is moving.

Memory Seats



If available, the MEM, “1,” and “2” buttons on the outboard side of the driver seat are used to manually save and recall the driver seat and outside mirror positions. These manually stored positions are referred to as Button Memory positions.

The vehicle will also automatically save driver seat and outside mirror positions to the current driver Remote Keyless Entry (RKE) transmitter when the ignition is placed in OFF. These automatically stored positions are referred to as RKE Memory positions. See *Remote Keyless Entry (RKE) System Operation on page 2-3*.

Storing Button Memory Positions

To save positions into Button Memory:

1. Adjust the driver seat and outside mirrors to the desired driving positions.
2. Press and hold MEM (Memory) and “1” at the same time until a beep sounds.
3. Repeat Steps 1 and 2 for a second driver using “2.”

Information Provided by:
DEALER E-PROCESS

Recalling Button Memory Positions

To recall the Button Memory positions, press and hold "1" or "2." The driver seat and outside mirrors move to the positions stored to those buttons when pressed. Releasing "1" or "2" before the stored positions are reached stops the recall.

If something has blocked the driver seat while recalling a memory position, the recall may stop. Remove the obstruction; then press and hold the appropriate manual control for the memory item that is not recalling for two seconds. Try recalling the memory position again by pressing the appropriate memory button. If the memory position is still not recalling, see your dealer for service.

Recalling RKE Memory Positions

The RKE memory feature can recall the driver seat and outside mirrors to previously stored RKE Memory positions when entering the vehicle.

Every time the ignition is placed in OFF, the positions of the driver seat and outside mirrors are automatically stored to the RKE transmitter that was used to start the vehicle. These positions and settings are called RKE Memory positions and may be different than the previously mentioned Button Memory positions saved to the "1" or "2" buttons.

To recall, press on the RKE transmitter and open the driver door. If the driver door is already open, press on the RKE transmitter to activate the recall. The driver seat and outside mirrors will move to the previously saved RKE Memory positions.

This feature is turned on or off using the vehicle personalization menu. See *Vehicle Personalization on page 5-31*.

To stop recall movement, press one of the memory, power mirror, or power seat controls.

If something has blocked the driver seat while recalling a memory position, the recall may stop. Remove the obstruction; then press and hold the appropriate manual control for the memory item that is not recalling for two seconds. Try recalling the memory position again by opening the driver door and pressing the RKE transmitter button. If the memory position is still not recalling, see your dealer for service.

Easy Exit Driver Seat

This feature moves the seat rearward allowing the driver more room to exit the vehicle.

To activate, place the ignition in OFF and open the driver door. If the driver door is already open, placing the ignition in OFF will activate the recall.

This feature is turned on or off using the vehicle personalization menu. See *Vehicle Personalization on page 5-31*.

Information Provided by: DEALER E-PROCESS

To stop recall movement, press one of the memory or power seat controls.

If something has blocked the driver seat while recalling the exit position, the recall may stop. Remove the obstruction; then press and hold the power seat control rearward for two seconds. Try recalling the exit position again. If the exit position is still not recalling, see your dealer for service.

Front Seat Armrest

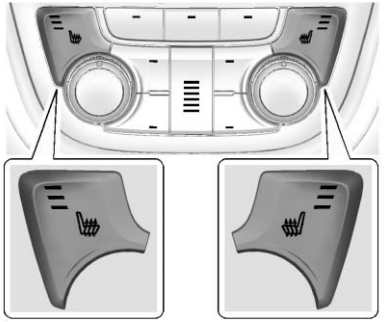


There is an armrest on the inboard side of the driver seat. To raise or lower the armrest, push up or pull down on the armrest.

Heated Front Seats

⚠ WARNING

If you cannot feel temperature change or pain to the skin, the seat heater may cause burns. To reduce the risk of burns, people with such a condition should use care when using the seat heater, especially for long periods of time. Do not place anything on the seat that insulates against heat, such as a blanket, cushion, cover, or similar item. This may cause the seat heater to overheat. An overheated seat heater may cause a burn or may damage the seat.



If equipped, the controls are on the climate control panel. The engine must be running to operate the heated seats.

Press or to heat the driver or passenger seat cushion and seatback.

Press the control once for the highest setting. With each press of the control, the heated seat will change to the next lower setting, and then the off setting. Three lights indicate the highest setting and one light the lowest.

Information Provided by: DEALER E-PROCESS

The passenger seat may take longer to heat up.

Remote Start Heated Seats

When it is cold outside, the heated seats can be turned on automatically during a remote vehicle start. The heated seats will be canceled when the ignition is turned on. Press the heated seat controls to use the heated seats after the vehicle is started.

The heated seat indicator lights on the control do not turn on during a remote start.

The temperature performance of an unoccupied seat may be reduced. This is normal.

The heated seats will not turn on during a remote start unless the heated seat feature is enabled in the vehicle personalization menu. See *Remote Vehicle Start on page 2-5* and *Vehicle Personalization on page 5-31*.

Folding Seatback

The front passenger seatback folds flat.

⚠ WARNING

If you fold the seatback forward to carry longer objects, such as skis, be sure any such cargo is not near an airbag. In a crash, an inflating airbag might force that object toward a person. This could cause severe injury or even death. Secure objects away from the area in which an airbag would inflate. For more information, see *Where Are the Airbags? on page 3-25* and *Vehicle Load Limits on page 9-10*.

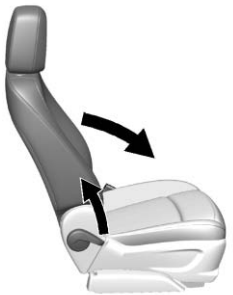
⚠ WARNING

Things you put on this seatback can strike and injure people in a sudden stop or turn, or in a crash. Remove or secure all items before driving.

To fold the seatback:

1. Lower the head restraint all the way. See *Head Restraints on page 3-2*.
2. Move the seat as far back as possible. See *Seat Adjustment on page 3-3*.

Information Provided by: DEALER E-PROCESS



3. Lift the lever fully and fold the seatback forward.

   If necessary, move the safety belt out of the way to access the lever.

4. Continue lowering the seatback until it is completely folded and locks in place.

To raise the seatback:

1. Lift the lever fully to unlock the seatback. Then, raise the seatback and push it rearward until it re-engages.
2. Push and pull on the seatback to make sure it is locked in place.

⚠ WARNING

If either seatback is not locked, it could move forward in a sudden stop or crash. That could cause injury to the person sitting there. Always push and pull on the seatbacks to be sure they are locked.

Rear Seats

Folding the Seatback

Either side of the seatback can be folded down for more cargo space. Fold a seatback only when the vehicle is not moving.

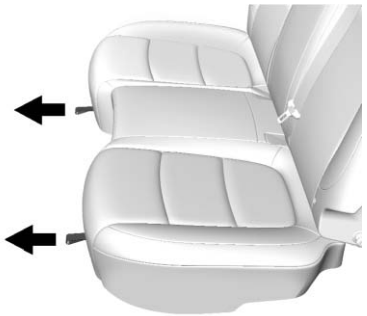
Notice: **Folding a rear seat with the safety belts still fastened may cause damage to the seat or the safety belts. Always unbuckle the safety belts and return them to their normal stowed position before folding a rear seat.**

Notice: **Folding the rear seatback prior to tilting the seat cushion forward may damage the rear seat. Always tilt the rear seat cushion forward before folding the seatback.**

Information Provided by: DEALER E-PROCESS

To fold a seatback down:

1. Make sure the floor area in front of the rear seats is clear.
2. Fully lower the head restraint. See *Head Restraints on page 3-2*.
3. Slide the front seats forward and place the front seatbacks in the upright position. See *Seat Adjustment on page 3-3* and *Reclining Seatbacks on page 3-5*.



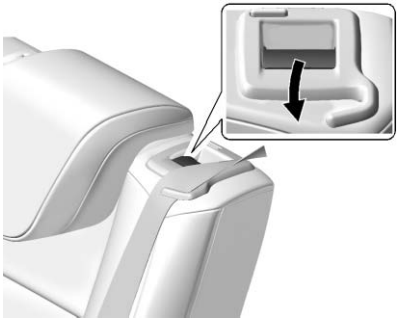
4. Pull the strap on the front edge of the rear seat cushion to release the cushion. Tilt the seat cushion forward toward the front of the vehicle.

   The seat cushion must be tilted forward before the seatback is folded down. Otherwise, the seatback will not fold down properly.



Rear Seat with Retainer Hook on the Seatback

5. Make sure the safety belt is in the retainer hook on top of the seatback, if equipped.



Rear Seat with Retainer Hook on the Seatback

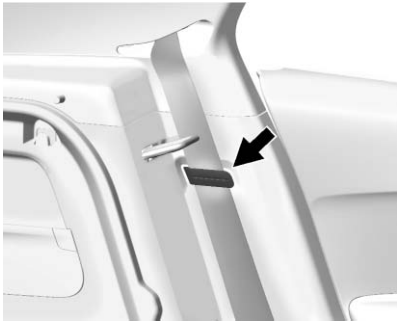
6. Reach under the belt and pull the lever on top of the seatback to unlock the seatback.

   A tab near the seatback lever raises when the seatback is unlocked.

Information Provided by DEALER E-PROCESS



7. Fold the seatback forward and down.



Safety Belt Clip on Side Trim

8. Place the outboard safety belt in the safety belt clip (if equipped) on the side trim of the vehicle.
9. Repeat Steps 1–8 for the other seatback and seat cushion, if desired.

Raising the Seatback

⚠ WARNING

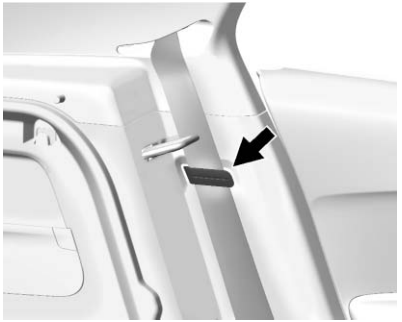
If either seatback is not locked, it could move forward in a sudden stop or crash. That could cause injury to the person sitting there. Always push and pull on the seatbacks to be sure they are locked.

⚠ WARNING

A safety belt that is improperly routed, not properly attached, or twisted will not provide the protection needed in a crash. The person wearing the belt could be seriously injured. After raising the rear seatback, always check to be sure that the safety belts are properly routed and attached, and are not twisted.

Information Provided by: DEALER E-PROCESS

To return the rear seatback to the normal seating position:



Safety Belt Clip on Side Trim

1. Remove the outboard safety belt from the safety belt clip (if equipped) on the side trim of the vehicle.
2. Lift the seatback and push it rearward to lock it in place. A tab near the seatback lever retracts when the seatback is locked in place.

   Make sure the safety belts are not pinched by the seatback locking mechanism.

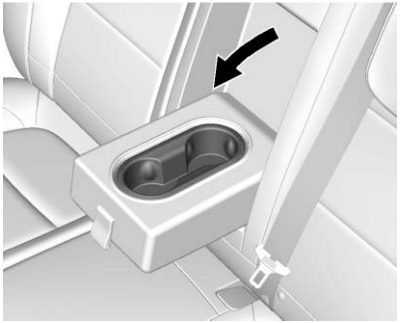
   The center rear safety belt may lock when you raise the seatback. If this happens, let the belt go back all the way and start again. If the safety belt is still locked, try again after pulling the seat cushion out.
3. Push and pull the top of the seatback to be sure it is locked into position.
4. Return the seat cushion to its original position and push down on the front part of the seat cushion until it latches.

   Make sure the safety belts and safety belt buckles are not trapped under the seat cushion and are properly positioned for use.
5. Repeat Steps 1–4 for the other seatback and seat cushion, if necessary.

If additional cargo space is not needed, the seatbacks should be kept in the upright, locked position.

Information Provided by:
DEALER E-PROCESS

Rear Seat Armrest



The rear seat has an armrest in the center of the seatback. Lower the armrest to access the cupholders.

To fold, lift the armrest up and push it rearward until it is flush with the seatback.

Safety Belts

This section of the manual describes how to use safety belts properly. It also describes some things not to do with safety belts.

⚠ WARNING

Do not let anyone ride where a safety belt cannot be worn properly. In a crash, if you or your passenger(s) are not wearing safety belts, injuries can be much worse than if you are wearing safety belts. You can be seriously injured or killed by hitting things inside the vehicle harder or by being ejected from the vehicle. In addition, anyone who is not buckled up can strike other passengers in the vehicle.

(Continued)

WARNING (Continued)

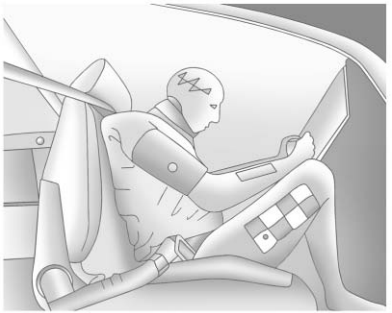
It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, passengers riding in these areas are more likely to be seriously injured or killed. Do not allow passengers to ride in any area of the vehicle that is not equipped with seats and safety belts.

Always wear a safety belt, and check that all passenger(s) are restrained properly too.

This vehicle has indicators as a reminder to buckle the safety belts. See *Safety Belt Reminders on page 5-11*.

Information Provided by: DEALER E-PROCESS

Why Safety Belts Work



When riding in a vehicle, you travel as fast as the vehicle does. If the vehicle stops suddenly, you keep going until something stops you. It could be the windshield, the instrument panel, or the safety belts!

When you wear a safety belt, you and the vehicle slow down together. There is more time to stop because you stop over a longer distance and, when worn properly, your strongest bones take the forces from the safety belts. That is why wearing safety belts makes such good sense.

Questions and Answers About Safety Belts

Q: Will I be trapped in the vehicle after a crash if I am wearing a safety belt?

A: You *could* be — whether you are wearing a safety belt or not. Your chance of being conscious during and after a crash, so you *can* unbuckle and get out, is *much* greater if you are belted.

Q: If my vehicle has airbags, why should I have to wear safety belts?

A: Airbags are supplemental systems only; so they work *with* safety belts — not instead of them. Whether or not an airbag is provided, all occupants still have to buckle up to get the most protection.

Also, in nearly all states and in all Canadian provinces, the law requires wearing safety belts.

How to Wear Safety Belts Properly

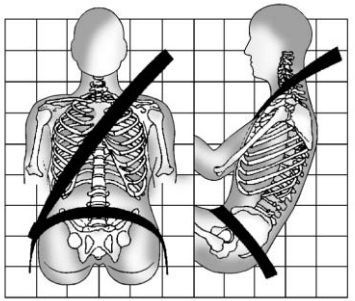
This section is only for people of adult size.

There are special things to know about safety belts and children. And there are different rules for smaller children and infants. If a child will be riding in the vehicle, see *Older Children on page 3-35* or *Infants and Young Children on page 3-37*. Follow those rules for everyone's protection.

It is very important for all occupants to buckle up. Statistics show that unbelted people are hurt more often in crashes than those who are wearing safety belts.

There are important things to know about wearing a safety belt properly.

Information Provided by: DEALER E-PROCESS



- Sit up straight and always keep your feet on the floor in front of you.
- Always use the correct buckle for your seating position.
- Wear the lap part of the belt low and snug on the hips, just touching the thighs. In a crash, this applies force to the strong pelvic bones and you would be less likely to slide under the lap belt. If you slid under it, the belt would apply force on your abdomen. This could cause serious or even fatal injuries.
- Wear the shoulder belt over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces. The shoulder belt locks if there is a sudden stop or crash.

⚠ WARNING

You can be seriously injured, or even killed, by not wearing your safety belt properly.

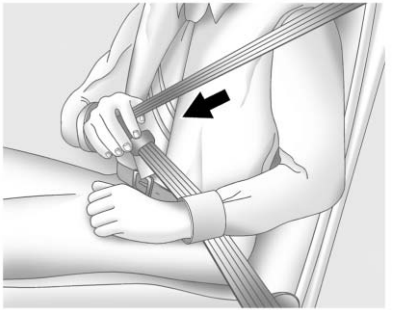
- Never allow the lap or shoulder belt to become loose or twisted.
- Never wear the shoulder belt under both arms or behind your back.
- Never route the lap or shoulder belt over an armrest.

Lap-Shoulder Belt

All seating positions in the vehicle have a lap-shoulder belt.

The following instructions explain how to wear a lap-shoulder belt properly.

1. Adjust the seat, if the seat is adjustable, so you can sit up straight. To see how, see “Seats” in the Index.



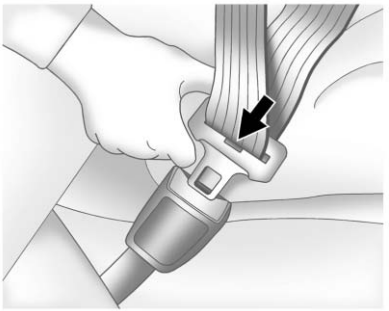
Information Provided by: DEALER E-PROCESS

2. Pick up the latch plate and pull the belt across you. Do not let it get twisted.

   The lap-shoulder belt may lock if you pull the belt across you very quickly. If this happens, let the belt go back slightly to unlock it. Then pull the belt across you more slowly.

   If the shoulder portion of a passenger belt is pulled out all the way, the child restraint locking feature may be engaged. If this happens, let the belt go back all the way and start again.

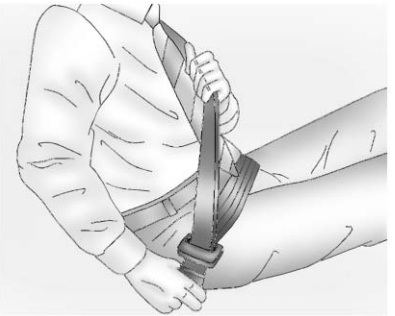
   The rear center safety belt can only be withdrawn from the retractor if the seatback is in the upright locked position.



3. Push the latch plate into the buckle until it clicks.
4. Pull up on the latch plate to make sure it is secure. If the belt is not long enough, see *Safety Belt Extender on page 3-21*.

   Position the release button on the buckle so that the safety belt could be quickly unbuckled if necessary.

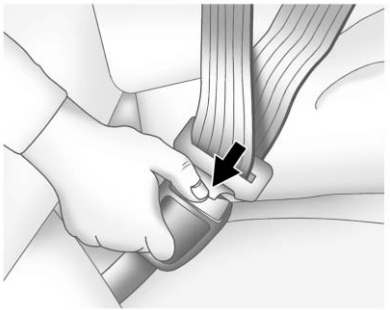
5. If equipped with a shoulder belt height adjuster, move it to the height that is right for you. See “Shoulder Belt Height Adjuster” later in this section for instructions on use and important safety information.



6. To make the lap part tight, pull up on the shoulder belt.

   It may be necessary to pull the stitching on the safety belt through the latch plate to fully tighten the lap belt on smaller occupants.

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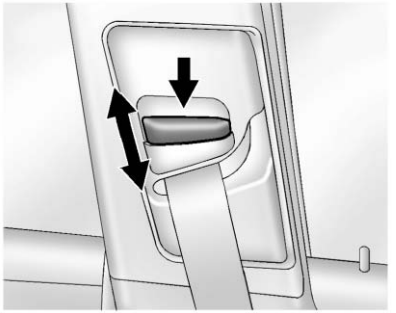
To unlatch the belt, push the button on the buckle. The belt should return to its stowed position. Slide the latch plate up the safety belt webbing when the safety belt is not in use.

Before a door is closed, be sure the safety belt is out of the way. If a door is slammed against a safety belt, damage can occur to both the safety belt and the vehicle.

Shoulder Belt Height Adjuster

The vehicle has a shoulder belt height adjuster for the driver and right front passenger seating positions.

Adjust the height so the shoulder portion of the belt is on the shoulder but not falling off of it. The belt should be close to but not contacting the neck. Improper shoulder belt height adjustment could reduce the effectiveness of the safety belt in a crash. See *How to Wear Safety Belts Properly on page 3-15*.



To move the shoulder belt height adjuster down, push down on the release button and move the height adjuster to the desired position. You can move the height adjuster up by pushing up on the shoulder belt guide.

After the adjuster is set to the desired position, try to move it down without pushing the release button to make sure it has locked into position.

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DEALER E-PROCESS

Safety Belt Pretensioners

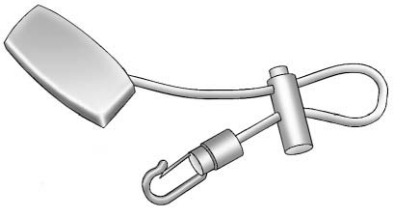
This vehicle has safety belt pretensioners for the front outboard occupants. Although the safety belt pretensioners cannot be seen, they are part of the safety belt assembly. They can help tighten the safety belts during the early stages of a moderate to severe frontal, near frontal, or rear crash if the threshold conditions for pretensioner activation are met. And, for vehicles with side impact airbags, safety belt pretensioners can help tighten the safety belts in a side crash or a rollover event.

Pretensioners work only once. If the pretensioners activate in a crash, the pretensioners and probably other parts of the vehicle's safety belt system will need to be replaced. See *Replacing Safety Belt System Parts after a Crash on page 3-22*.

Rear Safety Belt Comfort Guides

Rear safety belt comfort guides may provide added safety belt comfort for older children who have outgrown booster seats and for some adults. When installed on a shoulder belt, the comfort guide positions the shoulder belt away from the neck and head.

Safety belt comfort guides are available through your dealer.

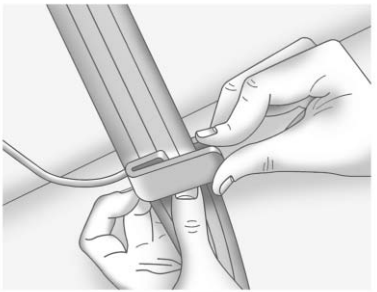


To install the adjustable comfort guide to the seatback and the safety belt:

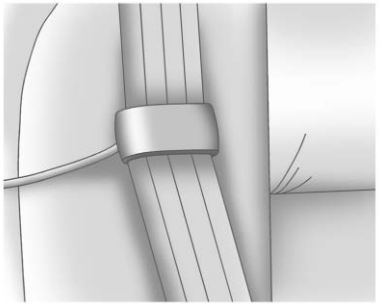


1. Locate the anchorage loop on the rear outboard seatback, near the top.
2. Attach the adjustable comfort guide to the anchor loop by threading the hook through the loop.

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3. Place the guide over the belt, and insert the two edges of the belt into the slots of the guide.

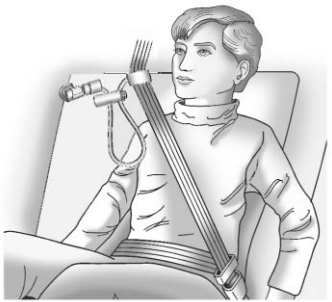


4. Be sure that the belt is not twisted and it lies flat. The elastic cord must be under the belt and the guide on top.
5. The elastic cord on the comfort guide is adjustable. You can make it longer or shorter by squeezing both ends of the plastic adjuster and pulling on the elastic cord or the guide.
6. Adjust the guide so the shoulder portion of the belt is on the shoulder and not falling off of it. The belt should be close to, but not contacting, the neck. Improper comfort guide adjustment could reduce the effectiveness of the safety belt in a crash.

⚠ WARNING

A safety belt that is not properly worn may not provide the protection needed in a crash. The person wearing the belt could be seriously injured. The shoulder belt should go over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces.

Information Provided by: DEALER E-PROCESS



7. Buckle and position the safety belt as described previously in this section. Make sure that the shoulder belt crosses the shoulder.

To remove and store the comfort guide, squeeze the belt edges together so that the safety belt can be removed from the guide. Un-hook the guide from the loop on the seat. Store the guide in a convenient place like the glove box for the next time it is needed.

Safety Belt Use During Pregnancy

Safety belts work for everyone, including pregnant women. Like all occupants, they are more likely to be seriously injured if they do not wear safety belts.



A pregnant woman should wear a lap-shoulder belt, and the lap portion should be worn as low as possible, below the rounding, throughout the pregnancy.

The best way to protect the fetus is to protect the mother. When a safety belt is worn properly, it is more likely that the fetus will not be hurt in a crash. For pregnant women, as for anyone, the key to making safety belts effective is wearing them properly.

Safety Belt Extender

If the vehicle's safety belt will fasten around you, you should use it.

But if a safety belt is not long enough, your dealer will order you an extender. When you go in to order it, take the heaviest coat you will wear, so the extender will be long enough for you. To help avoid personal injury, do not let someone else use it, and use it only for the seat it is made to fit. The extender has been designed for adults. Never use it for securing child seats. To wear it, attach it to the regular safety belt. See the instruction sheet that comes with the extender.

Information Provided by:
DEALER E-PROCESS

Safety System Check

Now and then, check that the safety belt reminder light, safety belts, buckles, latch plates, retractors, and anchorages are all working properly. Look for any other loose or damaged safety belt system parts that might keep a safety belt system from doing its job. See your dealer to have it repaired. Torn or frayed safety belts may not protect you in a crash. They can rip apart under impact forces. If a belt is torn or frayed, get a new one right away.

Make sure the safety belt reminder light is working. See *Safety Belt Reminders on page 5-11*.

Keep safety belts clean and dry. See *Safety Belt Care on page 3-22*.

Safety Belt Care

Keep belts clean and dry.

⚠ WARNING

Do not bleach or dye safety belts. It may severely weaken them. In a crash, they might not be able to provide adequate protection. Clean safety belts only with mild soap and lukewarm water.

Replacing Safety Belt System Parts after a Crash

⚠ WARNING

A crash can damage the safety belt system in the vehicle. A damaged safety belt system may not properly protect the person using it, resulting in serious injury or even death in a crash. To help make sure the safety belt systems are working properly after a crash, have them

(Continued)

WARNING (Continued)

inspected and any necessary replacements made as soon as possible.

After a minor crash, replacement of safety belts may not be necessary. But the safety belt assemblies that were used during any crash may have been stressed or damaged. See your dealer to have the safety belt assemblies inspected or replaced.

New parts and repairs may be necessary even if the safety belt system was not being used at the time of the crash.

Have the safety belt pretensioners checked if the vehicle has been in a crash, or if the airbag readiness light stays on after you start the vehicle or while you are driving. See *Airbag Readiness Light on page 5-12*.

Information Provided by: DEALER E-PROCESS

Airbag System

The vehicle has the following airbags:

- A frontal airbag for the driver.
- A frontal airbag for the front outboard passenger.
- A knee airbag for the driver.
- A knee airbag for the front outboard passenger.
- A seat-mounted side impact airbag for the driver.
- A seat-mounted side impact airbag for the front outboard passenger.
- Seat-mounted side impact airbags for the second row outboard passengers.
- A roof-rail airbag for the driver and the passenger seated directly behind the driver.
- A roof-rail airbag for the front outboard passenger and the passenger seated directly behind the front outboard passenger.

All vehicle airbags have the word AIRBAG on the trim or on a label near the deployment opening.

For frontal airbags, the word AIRBAG is on the center of the steering wheel for the driver and on the instrument panel for the front outboard passenger.

For knee airbags, the word AIRBAG is on the lower part of the instrument panel.

For seat-mounted side impact airbags, the word AIRBAG is on the side of the seatback closest to the door.

For roof-rail airbags, the word AIRBAG is on the ceiling or trim.

Airbags are designed to supplement the protection provided by safety belts. Even though today's airbags are also designed to help reduce the risk of injury from the force of an inflating bag, all airbags must inflate very quickly to do their job.

Here are the most important things to know about the airbag system:

⚠ WARNING

You can be severely injured or killed in a crash if you are not wearing your safety belt, even with airbags. Airbags are designed to work with safety belts, not replace them. Also, airbags are not designed to inflate in every crash. In some crashes safety belts are the only restraint. See *When Should an Airbag Inflate? on page 3-26*.

Wearing your safety belt during a crash helps reduce the chance of hitting things inside the vehicle or being ejected from it. Airbags are “supplemental restraints” to the safety belts. Everyone in the

(Continued)

Information Provided by: DEALER E-PROCESS

WARNING (Continued)

vehicle should wear a safety belt properly, whether or not there is an airbag for that person.

⚠ WARNING

Because airbags inflate with great force and faster than the blink of an eye, anyone who is up against, or very close to any airbag when it inflates can be seriously injured or killed. Do not sit unnecessarily close to any airbag, as you would be if sitting on the edge of the seat or leaning forward. Safety belts help keep you in position before and during a crash. Always wear a safety belt, even with airbags. The driver should sit as far back as possible while still maintaining control of the vehicle.

(Continued)

WARNING (Continued)

Occupants should not lean on or sleep against the door or side windows in seating positions with seat-mounted side impact airbags and/or roof-rail airbags.

⚠ WARNING

Children who are up against, or very close to, any airbag when it inflates can be seriously injured or killed. Airbags plus lap-shoulder belts offer protection for adults and older children, but not for young children and infants. Neither the vehicle's safety belt system nor its airbag system is designed for them. Young children and infants need the protection that a child restraint system can provide. Always secure children properly in the

(Continued)

WARNING (Continued)

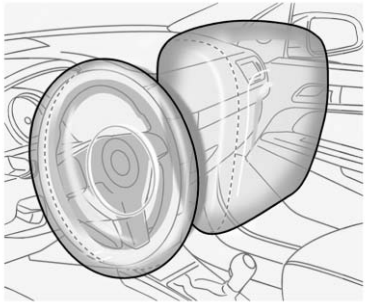
vehicle. To read how, see *Older Children on page 3-35* or *Infants and Young Children on page 3-37*.



There is an airbag readiness light on the instrument panel cluster, which shows the airbag symbol. The system checks the airbag electrical system for malfunctions. The light tells you if there is an electrical problem. See *Airbag Readiness Light on page 5-12*.

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Where Are the Airbags?

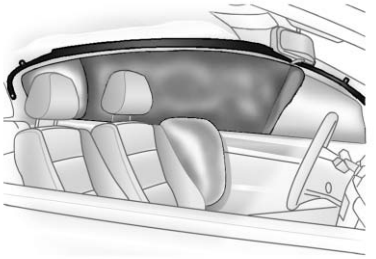


The driver frontal airbag is in the center of the steering wheel.

The front outboard passenger frontal airbag is in the passenger side instrument panel.



The driver knee airbag is below the steering column. The front outboard passenger knee airbag is below the glove box.

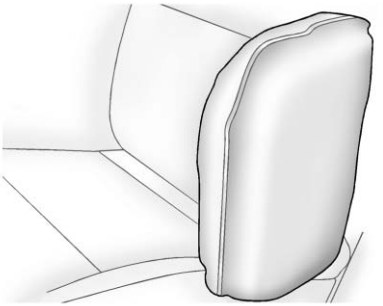


Driver Side Shown, Passenger Side Similar

The seat-mounted side impact airbags for the driver and front outboard passenger are in the side of the seatbacks closest to the door.

The roof-rail airbags for the driver, right front passenger, and second row outboard passengers are in the ceiling above the side windows.

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Rear Seat Driver Side Shown, Passenger Side Similar

The second row seat-mounted side impact airbags are in the sides of the rear seatback closest to the door.

⚠ WARNING

If something is between an occupant and an airbag, the airbag might not inflate properly or it might force the object into that person causing severe injury

(Continued)

WARNING (Continued)

or even death. The path of an inflating airbag must be kept clear. Do not put anything between an occupant and an airbag, and do not attach or put anything on the steering wheel hub or on or near any other airbag covering.

Do not use seat accessories that block the inflation path of a seat-mounted side impact airbag.

Never secure anything to the roof of a vehicle with roof-rail airbags by routing a rope or tie-down through any door or window opening. If you do, the path of an inflating roof-rail airbag will be blocked.

When Should an Airbag Inflate?

Frontal airbags are designed to inflate in moderate to severe frontal or near frontal crashes to help reduce the potential for severe injuries, mainly to the driver's or front outboard passenger's head and chest. However, they are only designed to inflate if the impact exceeds a predetermined deployment threshold. Deployment thresholds are used to predict how severe a crash is likely to be in time for the airbags to inflate and help restrain the occupants.

Whether the frontal airbags will or should inflate is not based primarily on how fast the vehicle is traveling. It depends on what is hit, the direction of the impact, and how quickly the vehicle slows down.

Frontal airbags may inflate at different crash speeds depending on whether the vehicle hits an object straight on or at an angle, and

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whether the object is fixed or moving, rigid or deformable, narrow or wide.

Thresholds can also vary with specific vehicle design.

Frontal airbags are not intended to inflate during vehicle rollovers, rear impacts, or in many side impacts.

In addition, the vehicle has dual-stage frontal airbags. Dual-stage airbags adjust the restraint according to crash severity.

Knee airbags are designed to inflate in moderate to severe frontal or near frontal impacts that exceed a predetermined deployment threshold.

The vehicle has electronic frontal sensors, which help the sensing system distinguish between a moderate frontal impact and a more severe frontal impact. For moderate frontal impacts, dual-stage airbags inflate at a level less than full deployment. For more severe frontal impacts, full deployment occurs.

The vehicle has seat-mounted side impact airbags for the driver and front passenger. The vehicle has seat-mounted side impact airbags for the second row outboard passengers. The vehicle has roof-rail airbags. See *Airbag System on page 3-23*. Seat-mounted side impact airbags and roof-rail airbags are intended to inflate in moderate to severe side crashes depending on the location of the impact. In addition, these roof-rail airbags are intended to inflate during a rollover or in a severe frontal impact. Seat-mounted side impact airbags and roof-rail airbags will inflate if the crash severity is above the system's designed threshold level. The threshold level can vary with specific vehicle design.

Roof-rail airbags are not intended to inflate in rear impacts.
A seat-mounted side impact airbag is intended to inflate on the side of the vehicle that is struck. Both roof-rail airbags will inflate when either side of the vehicle is struck or if the sensing system predicts that the vehicle is about to roll over on its side, or in a severe frontal impact.

In any particular crash, no one can say whether an airbag should have inflated simply because of the vehicle damage or repair costs.

What Makes an Airbag Inflate?

In a deployment event, the sensing system sends an electrical signal triggering a release of gas from the inflator. Gas from the inflator fills the airbag causing the bag to break out of the cover. The inflator, the airbag, and related hardware are all part of the airbag module.

For airbag locations, see *Where Are the Airbags? on page 3-25*.

Information Provided by:
DEALER E-PROCESS

How Does an Airbag Restrain?

In moderate to severe frontal or near frontal collisions, even belted occupants can contact the steering wheel or the instrument panel. In moderate to severe side collisions, even belted occupants can contact the inside of the vehicle.

Airbags supplement the protection provided by safety belts by distributing the force of the impact more evenly over the occupant's body.

Rollover capable roof-rail airbags are designed to help contain the head and chest of occupants in the outboard seating positions in the first and second rows. The rollover capable roof-rail airbags are designed to help reduce the risk of full or partial ejection in rollover events, although no system can prevent all such ejections.

But airbags would not help in many types of collisions, primarily because the occupant's motion is not toward those airbags. See *When Should an Airbag Inflate? on page 3-26*.

Airbags should never be regarded as anything more than a supplement to safety belts.

What Will You See after an Airbag Inflates?

After the frontal airbags and seat-mounted side impact airbags inflate, they quickly deflate, so quickly that some people may not even realize an airbag inflated. Roof-rail airbags may still be at least partially inflated for some time after they inflate. Some components of the airbag module may be hot for several minutes. For location of the airbags, see *Where Are the Airbags? on page 3-25*.

The parts of the airbag that come into contact with you may be warm, but not too hot to touch. There may be some smoke and dust coming from the vents in the deflated airbags. Airbag inflation does not prevent the driver from seeing out of the windshield or being able to steer the vehicle, nor does it prevent people from leaving the vehicle.

⚠ WARNING

When an airbag inflates, there may be dust in the air. This dust could cause breathing problems for people with a history of asthma or other breathing trouble. To avoid this, everyone in the vehicle should get out as soon as it is safe to do so. If you have breathing problems but cannot get out of the vehicle after an airbag inflates, then get fresh air by opening a window or a door. If you experience breathing problems following an airbag deployment, you should seek medical attention.

Information Provided by DEALER E-PROCESS

The vehicle has a feature that may automatically unlock the doors, turn the interior lamps on, turn the hazard warning flashers on, and shut off the fuel system after the airbags inflate. You can lock the doors, turn the interior lamps off, and turn the hazard warning flashers off by using the controls for those features.

⚠ WARNING

A crash severe enough to inflate the airbags may have also damaged important functions in the vehicle, such as the fuel system, brake and steering systems, etc. Even if the vehicle appears to be drivable after a moderate crash, there may be concealed damage that could make it difficult to safely operate the vehicle.

Use caution if you should attempt to restart the engine after a crash has occurred.

In many crashes severe enough to inflate the airbag, windshields are broken by vehicle deformation. Additional windshield breakage may also occur from the front outboard passenger airbag.

- Airbags are designed to inflate only once. After an airbag inflates, you will need some new parts for the airbag system. If you do not get them, the airbag system will not be there to help protect you in another crash. A new system will include airbag modules and possibly other parts. The service manual for the vehicle covers the need to replace other parts.
- The vehicle has a crash sensing and diagnostic module which records information after a crash. See *Vehicle Data Recording and Privacy on page 13-19* and *Event Data Recorders on page 13-19*.
- Let only qualified technicians work on the airbag systems. Improper service can mean that an airbag system will not work properly. See your dealer for service.

Passenger Sensing System

The vehicle has a passenger sensing system for the front outboard passenger position. The passenger airbag status indicator will light on the instrument panel when the vehicle is started.

Information Provided by: DEALER E-PROCESS



United States



Canada and Mexico

The words ON and OFF, or the symbol for on and off, will be visible during the system check. If you use remote start, if equipped, to start the vehicle, you may not see the system check. When the system check is complete, either the word ON or OFF, or the symbol for on or off, will be visible. See *Passenger Airbag Status Indicator on page 5-12*.

The passenger sensing system turns off the front outboard passenger frontal airbag and knee airbag under certain conditions. No other airbag is affected by the passenger sensing system.

The passenger sensing system works with sensors that are part of the front outboard passenger seat. The sensors are designed to detect the presence of a properly seated occupant and determine if the front outboard passenger frontal airbag and knee airbag should be allowed to inflate or not.

According to accident statistics, children are safer when properly secured in a rear seat in the correct child restraint for their weight and size.

We recommend that children be secured in a rear seat, including: an infant or a child riding in a rear-facing child restraint; a child riding in a forward-facing child seat; an older child riding in a booster seat; and children, who are large enough, using safety belts.

Never put a rear-facing child seat in the front. This is because the risk to the rear-facing child is so great, if the airbag inflates.

⚠ WARNING

A child in a rear-facing child restraint can be seriously injured or killed if the passenger frontal airbag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating airbag. A child in a forward-facing child restraint can be seriously injured or killed if the passenger frontal airbag inflates and the passenger seat is in a forward position.

Even if the passenger sensing system has turned off the front outboard passenger airbag(s), no system is fail-safe. No one can guarantee that an airbag will not

(Continued)

Information Provided by: DEALER E-PROCESS

WARNING (Continued)

inflate under some unusual circumstance, even though the airbag(s) are off.

Secure rear-facing child restraints in a rear seat, even if the airbag(s) are off. If you secure a forward-facing child restraint in the front outboard passenger seat, always move the seat as far back as it will go. It is better to secure the child restraint in a rear seat.

The passenger sensing system is designed to turn off the front outboard passenger frontal airbag and knee airbag if:

- The front outboard passenger seat is unoccupied.
- The system determines that an infant is present in a rear-facing infant seat.
- The system determines that a small child is present in a child restraint.
- The system determines that a small child is present in a booster seat.
- A front outboard passenger takes his/her weight off of the seat for a period of time.
- A front outboard passenger seat is occupied by a smaller person, such as a child who has outgrown child restraints.
- There is a critical problem with the airbag system or the passenger sensing system.

When the passenger sensing system has turned off the front outboard passenger frontal airbag and knee airbag, the off indicator will light and stay lit as a reminder that the airbags are off. See *Passenger Airbag Status Indicator on page 5-12*.

The passenger sensing system is designed to turn on the front outboard passenger frontal airbag and knee airbag anytime the system senses that a person of adult size is sitting properly in the front outboard passenger seat. When the passenger sensing system has allowed the airbags to be enabled, the on indicator will light and stay lit as a reminder that the airbags are active.

For some children, who have outgrown child restraints and for very small adults, the passenger sensing system may or may not turn off the front outboard passenger frontal airbag and knee airbag, depending upon the person's seating posture and body build. Everyone in the vehicle who has outgrown child restraints should wear a safety belt properly — whether or not there is an airbag for that person.

Information Provided by: DEALER E-PROCESS

⚠ WARNING

If the airbag readiness light ever comes on and stays on, it means that something may be wrong with the airbag system. To help avoid injury to yourself or others, have the vehicle serviced right away. See *Airbag Readiness Light on page 5-12* for more information, including important safety information.

If the On Indicator Is Lit for a Child Restraint

If a child restraint has been installed and the on indicator is lit:

1. Turn the vehicle off.
2. Remove the child restraint from the vehicle.
3. Remove any additional items from the seat such as blankets, cushions, seat covers, seat heaters, or seat massagers.
4. Reinstall the child restraint following the directions provided by the child restraint manufacturer and refer to *Securing Child Restraints (Rear Seat) on page 3-48* or *Securing Child Restraints (Front Passenger Seat) on page 3-51*.
5. If, after reinstalling the child restraint and restarting the vehicle, the on indicator is still lit, turn the vehicle off. Then slightly recline the vehicle seatback and adjust the seat cushion, if adjustable, to make sure that the vehicle seatback is not pushing the child restraint into the seat cushion. Also make sure the child restraint is not trapped under the vehicle head restraint. If this happens, adjust the head restraint. See *Head Restraints on page 3-2*.
6. Restart the vehicle.

If the on indicator is still lit, secure the child in the child restraint in a rear seat position in the vehicle, and check with your dealer.

If the Off Indicator Is Lit for an Adult-Size Occupant



Information Provided by: DEALER E-PROCESS

If a person of adult size is sitting in the front outboard passenger seat, but the off indicator is lit, it could be because that person is not sitting properly in the seat. Use the following steps to allow the system to detect that person and enable the front outboard passenger frontal airbag and knee airbag:

1. Turn the vehicle off.
2. Remove any additional material from the seat, such as blankets, cushions, seat covers, seat heaters, or seat massagers.
3. Place the seatback in the fully upright position.
4. Have the person sit upright in the seat, centered on the seat cushion, with legs comfortably extended.
5. Restart the vehicle and have the person remain in this position for one minute after the on indicator is lit.

Additional Factors Affecting System Operation

Safety belts help keep the passenger in position on the seat during vehicle maneuvers and braking, which helps the passenger sensing system maintain the passenger airbag status. See “Safety Belts” and “Child Restraints” in the Index for additional information about the importance of proper restraint use.

A thick layer of additional material, such as a blanket or cushion, or aftermarket equipment such as seat covers, seat heaters, and seat massagers can affect how well the passenger sensing system operates. We recommend that you not use seat covers or other aftermarket equipment except when approved by GM for your specific vehicle. See *Adding Equipment to the Airbag-Equipped Vehicle on page 3-34* for more information about modifications that can affect how the system operates.

⚠ WARNING

Stowing of articles under the passenger seat or between the passenger seat cushion and seatback may interfere with the proper operation of the passenger sensing system.

Servicing the Airbag-Equipped Vehicle

Airbags affect how the vehicle should be serviced. There are parts of the airbag system in several places around the vehicle. Your dealer and the service manual have information about servicing the vehicle and the airbag system. To purchase a service manual, see *Service Publications Ordering Information on page 13-16*.

Information Provided by: DEALER E-PROCESS

⚠ WARNING

For up to 10 seconds after the vehicle is turned off and the battery is disconnected, an airbag can still inflate during improper service. You can be injured if you are close to an airbag when it inflates. Avoid yellow connectors. They are probably part of the airbag system. Be sure to follow proper service procedures, and make sure the person performing work for you is qualified to do so.

Adding Equipment to the Airbag-Equipped Vehicle

Adding accessories that change the vehicle's frame, bumper system, height, front end or side sheet metal, may keep the airbag system from working properly. The operation of the airbag system can also be affected by changing or moving any parts of the front seats, safety belts, the airbag sensing and diagnostic module, steering wheel, instrument panel, roof-rail airbag modules, ceiling headliner or pillar garnish trim, overhead console, front sensors, side impact sensors, or airbag wiring.

Your dealer and the service manual have information about the location of the airbag sensors, sensing and diagnostic module, and airbag wiring.

If the vehicle has rollover roof-rail airbags, see *Different Size Tires and Wheels on page 10-52* for important information.

If you have to modify your vehicle because you have a disability and have questions about whether the modifications will affect the vehicle's airbag system, or if you have questions about whether the airbag system will be affected if the vehicle is modified for any other reason, call Customer Assistance. See *Customer Assistance Offices (U.S. and Canada) on page 13-5* or *Customer Assistance Offices (Mexico) on page 13-5*.

Airbag System Check

The airbag system does not need regularly scheduled maintenance or replacement. Make sure the airbag readiness light is working. See *Airbag Readiness Light on page 5-12*.

Notice: **If an airbag covering is damaged, opened, or broken, the airbag may not work properly. Do not open or break the airbag coverings. If there are any opened or broken airbag covers, have the airbag covering and/or airbag module replaced. For the location of the airbags, see *Where Are the Airbags? on page 3-25*. See your dealer for service.**

Information Provided by: DEALER E-PROCESS

Replacing Airbag System Parts after a Crash

⚠ WARNING

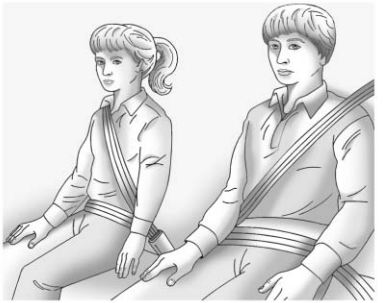
A crash can damage the airbag systems in the vehicle. A damaged airbag system may not work properly and may not protect you and your passenger(s) in a crash, resulting in serious injury or even death. To help make sure the airbag systems are working properly after a crash, have them inspected and any necessary replacements made as soon as possible.

If an airbag inflates, you will need to replace airbag system parts. See your dealer for service.

If the airbag readiness light stays on after the vehicle is started or comes on when you are driving, the airbag system may not work properly. Have the vehicle serviced right away. See *Airbag Readiness Light on page 5-12*.

Child Restraints

Older Children



Older children who have outgrown booster seats should wear the vehicle safety belts.

Information Provided by: DEALER E-PROCESS

The manufacturer instructions that come with the booster seat state the weight and height limitations for that booster. Use a booster seat with a lap-shoulder belt until the child passes the fit test below:

- Sit all the way back on the seat. Do the knees bend at the seat edge? If yes, continue. If no, return to the booster seat.
- Buckle the lap-shoulder belt. Does the shoulder belt rest on the shoulder? If yes, continue. If no, try using the rear safety belt comfort guide. See “Rear Safety Belt Comfort Guides” under *Lap-Shoulder Belt on page 3-16*. If the shoulder belt still does not rest on the shoulder, then return to the booster seat.
- Does the lap belt fit low and snug on the hips, touching the thighs? If yes, continue. If no, return to the booster seat.
- Can proper safety belt fit be maintained for the length of the trip? If yes, continue. If no, return to the booster seat.

Q: What is the proper way to wear safety belts?

A: An older child should wear a lap-shoulder belt and get the additional restraint a shoulder belt can provide. The shoulder belt should not cross the face or neck. The lap belt should fit snugly below the hips, just touching the top of the thighs. This applies belt force to the child's pelvic bones in a crash. It should never be worn over the abdomen, which could cause severe or even fatal internal injuries in a crash.

Also see “Rear Safety Belt Comfort Guides” under *Lap-Shoulder Belt on page 3-16*.

According to accident statistics, children and infants are safer when properly restrained in a child restraint system or infant restraint system secured in a rear seating position.

In a crash, children who are not buckled up can strike other people who are buckled up, or can be thrown out of the vehicle. Older children need to use safety belts properly.

⚠ WARNING

Never allow more than one child to wear the same safety belt. The safety belt cannot properly spread the impact forces. In a crash, they can be crushed together and seriously injured. A safety belt must be used by only one person at a time.

Information Provided by: DEALER E-PROCESS



⚠ WARNING

Never allow a child to wear the safety belt with the shoulder belt behind their back. A child can be seriously injured by not wearing the lap-shoulder belt properly. In a crash, the child would not be restrained by the shoulder belt.

(Continued)

WARNING (Continued)

The child could move too far forward increasing the chance of head and neck injury. The child might also slide under the lap belt. The belt force would then be applied right on the abdomen. That could cause serious or fatal injuries. The shoulder belt should go over the shoulder and across the chest.



Infants and Young Children

Everyone in a vehicle needs protection! This includes infants and all other children. Neither the distance traveled nor the age and size of the traveler changes the need, for everyone, to use safety restraints. In fact, the law in every state in the United States and in every Canadian province says children up to some age must be restrained while in a vehicle.

⚠ WARNING

Children can be seriously injured or strangled if a shoulder belt is wrapped around their neck and the safety belt continues to tighten. Never leave children unattended in a vehicle and never allow children to play with the safety belts.

Information Provided by: DEALER E-PROCESS

Airbags plus lap-shoulder belts offer protection for adults and older children, but not for young children and infants. Neither the vehicle's safety belt system nor its airbag system is designed for them. Every time infants and young children ride in vehicles, they should have the protection provided by appropriate child restraints.

Children who are not restrained properly can strike other people, or can be thrown out of the vehicle.

⚠ WARNING

Never hold an infant or a child while riding in a vehicle. Due to crash forces, an infant or a child will become so heavy it is not possible to hold it during a crash. For example, in a crash at only 40 km/h (25 mph), a 5.5 kg (12 lb) infant will suddenly become a 110 kg (240 lb) force on a person's

(Continued)

WARNING (Continued)

arms. An infant should be secured in an appropriate restraint.



⚠ WARNING

Children who are up against, or very close to, any airbag when it inflates can be seriously injured or killed. Never put a rear-facing

(Continued)

WARNING (Continued)

child restraint in the right front seat. Secure a rear-facing child restraint in a rear seat. It is also better to secure a forward-facing child restraint in a rear seat. If you must secure a forward-facing child restraint in the right front seat, always move the front passenger seat as far back as it will go.



Information Provided by: DEALER E-PROCESS

Q: What are the different types of add-on child restraints?

A: Add-on child restraints, which are purchased by the vehicle owner, are available in four basic types. Selection of a particular restraint should take into consideration not only the child's weight, height, and age but also whether or not the restraint will be compatible with the motor vehicle in which it will be used.

For most basic types of child restraints, there are many different models available. When purchasing a child restraint, be sure it is designed to be used in a motor vehicle. If it is, the restraint will have a label saying that it meets federal motor vehicle safety standards.

The restraint manufacturer instructions that come with the restraint state the weight and height limitations for a particular child restraint. In addition, there are many kinds of restraints available for children with special needs.

⚠ WARNING

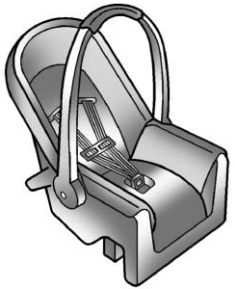
To reduce the risk of neck and head injury during a crash, infants need complete support. In a crash, if an infant is in a rear-facing child restraint, the crash forces can be distributed across the strongest part of an infant's body, the back and shoulders. Infants should always be secured in rear-facing child restraints.

⚠ WARNING

A young child's hip bones are still so small that the vehicle's regular safety belt may not remain low on the hip bones, as it should. Instead, it may settle up around the child's abdomen. In a crash, the belt would apply force on a body area that is unprotected by any bony structure. This alone could cause serious or fatal injuries. To reduce the risk of serious or fatal injuries during a crash, young children should always be secured in appropriate child restraints.

Information Provided by: DEALER E-PROCESS

Child Restraint Systems



Rear-Facing Infant Seat

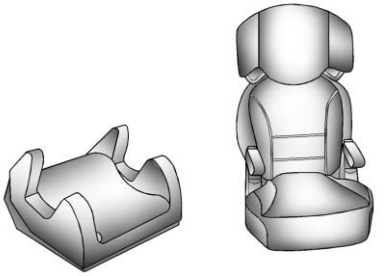
A rear-facing infant seat provides restraint with the seating surface against the back of the infant.

The harness system holds the infant in place and, in a crash, acts to keep the infant positioned in the restraint.



Forward-Facing Child Seat

A forward-facing child seat provides restraint for the child's body with the harness.



Booster Seats

A booster seat is a child restraint designed to improve the fit of the vehicle's safety belt system.
A booster seat can also help a child to see out the window.

Information Provided by:
DEALER E-PROCESS

Securing an Add-On Child Restraint in the Vehicle

⚠ WARNING

A child can be seriously injured or killed in a crash if the child restraint is not properly secured in the vehicle. Secure the child restraint properly in the vehicle using the vehicle safety belt or LATCH system, following the instructions that came with that child restraint and the instructions in this manual.

To help reduce the chance of injury, the child restraint must be secured in the vehicle. Child restraint systems must be secured in vehicle seats by lap belts or the lap belt portion of a lap-shoulder belt, or by the LATCH system. See *Lower Anchors and Tethers for Children (LATCH System) on page 3-43*.

Children can be endangered in a crash if the child restraint is not properly secured in the vehicle.

When securing an add-on child restraint, refer to the instructions that come with the restraint which may be on the restraint itself or in a booklet, or both, and to this manual. The child restraint instructions are important, so if they are not available, obtain a replacement copy from the manufacturer.

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in the vehicle — even when no child is in it.

In some areas of the United States and Canada, Certified Child Passenger Safety Technicians (CPSTs) are available to inspect and demonstrate how to correctly use and install child restraints. In the U.S., refer to the National Highway Traffic Safety Administration (NHTSA) website to locate the nearest child safety seat inspection station. For CPST availability in Canada, check with Transport Canada or the Provincial Ministry of Transportation office.

Information Provided by: DEALER E-PROCESS

Securing the Child Within the Child Restraint

⚠ WARNING

A child can be seriously injured or killed in a crash if the child is not properly secured in the child restraint. Secure the child properly following the instructions that came with that child restraint.

Where to Put the Restraint

According to accident statistics, children and infants are safer when properly restrained in a child restraint system or infant restraint system secured in a rear seating position.

We recommend that children and child restraints be secured in a rear seat, including: an infant or a child riding in a rear-facing child restraint; a child riding in a forward-facing child seat; an older child riding in a booster seat; and children, who are large enough, using safety belts.

Never put a rear-facing child seat in the front. This is because the risk to the rear-facing child is so great if the airbag deploys.

⚠ WARNING

A child in a rear-facing child restraint can be seriously injured or killed if the right front passenger airbag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating airbag. A child in a forward-facing child restraint can be seriously injured or killed if the right front

(Continued)

WARNING (Continued)

passenger airbag inflates and the passenger seat is in a forward position.

Even if the passenger sensing system has turned off the right front passenger frontal airbag, no system is fail-safe. No one can guarantee that an airbag will not deploy under some unusual circumstance, even though it is turned off.

Secure rear-facing child restraints in a rear seat, even if the airbag is off. If you secure a forward-facing child restraint in the right front seat, always move the front passenger seat as far back as it will go. It is better to secure the child restraint in a rear seat.

See *Passenger Sensing System on page 3-29* for additional information.

When securing a child restraint in a rear seating position, study the instructions that came with the child restraint to make sure it is compatible with this vehicle.

Child restraints and booster seats vary considerably in size, and some may fit in certain seating positions better than others. Always make sure the child restraint is properly secured.

Depending on where you place the child restraint and the size of the child restraint, you may not be able to access adjacent safety belt assemblies or LATCH anchors for additional passengers or child restraints. Adjacent seating positions should not be used if the child restraint prevents access to or interferes with the routing of the safety belt.

Wherever a child restraint is installed, be sure to secure the child restraint properly.

Information Provided by: DEALER E-PROCESS

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in the vehicle — even when no child is in it.

Lower Anchors and Tethers for Children (LATCH System)

The LATCH system secures a child restraint during driving or in a crash. LATCH attachments on the child restraint are used to attach the child restraint to the anchors in the vehicle. This system is designed to make installation of a child restraint easier.

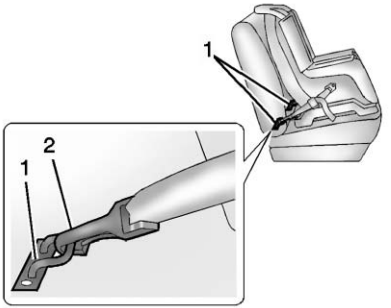
Make sure that a LATCH-compatible child restraint is properly installed using the anchors, or use the vehicle's safety belts to secure the restraint, following the instructions that came with that restraint, and also the instructions in this manual.

When installing a child restraint with a top tether, you must also use either the lower anchors or the safety belts to properly secure the child restraint. A child restraint must never be installed using only the top tether and anchor.

In order to use the LATCH system in your vehicle, you need a child restraint that has LATCH attachments. The child restraint manufacturer will provide you with instructions on how to use the child restraint and its attachments. The following explains how to attach a child restraint with these attachments in your vehicle.

Not all vehicle seating positions or child restraints have lower anchors and attachments or top tether anchors and attachments.

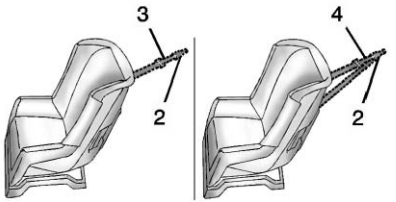
Lower Anchors



Lower anchors (1) are metal bars built into the vehicle. There are two lower anchors for each LATCH seating position that will accommodate a child restraint with lower attachments (2).

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Top Tether Anchor

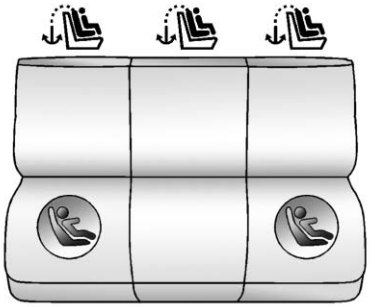


A top tether (3, 4) anchors the top of the child restraint to the vehicle. A top tether anchor is built into the vehicle. The top tether attachment (2) on the child restraint connects to the top tether anchor in the vehicle in order to reduce the forward movement and rotation of the child restraint during driving or in a crash.

The child restraint may have a single tether (3) or a dual tether (4). Either will have a single attachment (2) to secure the top tether to the anchor.

Some child restraints that have a top tether are designed for use with or without the top tether being attached. Others require the top tether always to be attached. In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached. Be sure to read and follow the instructions for your child restraint.

Lower Anchor and Top Tether Anchor Locations



(Top Tether Anchor): Seating positions with top tether anchors.

(Lower Anchor): Seating positions with two lower anchors.

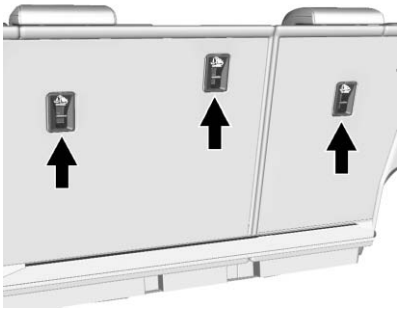
Information Provided by:
DEALER E-PROCESS



To assist in locating the lower anchors, each seating position with lower anchors has two labels, near the crease between the seatback and the seat cushion.



To assist in locating the top tether anchors, the top tether anchor symbol is on the trim near the anchor.



The top tether anchors are on the back of the rear seatbacks. Be sure to use an anchor on the same side of the vehicle as the seating position where the child restraint will be placed.

Do not secure a child restraint in a position without a top tether anchor if a national or local law requires that the top tether be attached, or if the instructions that come with the child restraint say that the top tether must be attached.

According to accident statistics, children and infants are safer when properly restrained in a child restraint system or infant restraint system secured in a rear seating position. See *Where to Put the Restraint on page 3-41* for additional information.

Securing a Child Restraint Designed for the LATCH System

⚠ WARNING

If a LATCH-type child restraint is not attached to anchors, the child restraint will not be able to protect the child correctly. In a crash, the child could be seriously injured or killed. Install a LATCH-type child restraint properly using the anchors, or use the vehicle safety belts to secure the restraint, following the instructions that came with the child restraint and the instructions in this manual.

Information Provided by: DEALER E-PROCESS

⚠ WARNING

Do not attach more than one child restraint to a single anchor. Attaching more than one child restraint to a single anchor could cause the anchor or attachment to come loose or even break during a crash. A child or others could be injured. To reduce the risk of serious or fatal injuries during a crash, attach only one child restraint per anchor.

⚠ WARNING

Children can be seriously injured or strangled if a shoulder belt is wrapped around their neck and the safety belt continues to tighten. Buckle any unused safety belts behind the child restraint so children cannot reach them. Pull the shoulder belt all the way out

(Continued)

WARNING (Continued)

of the retractor to set the lock, if the vehicle has one, after the child restraint has been installed.

Notice: **Do not let the LATCH attachments rub against the vehicle's safety belts. This may damage these parts. If necessary, move buckled safety belts to avoid rubbing the LATCH attachments.**

Do not fold the empty rear seat with a safety belt buckled. This could damage the safety belt or the seat. Unbuckle and return the safety belt to its stowed position, before folding the seat.

If you need to secure more than one child restraint in the rear seat, see *Where to Put the Restraint on page 3-41*.

This system is designed to make installation of child restraints easier. When using lower anchors, do not use the vehicle's safety belts. Instead use the vehicle's anchors and child restraint attachments to secure the restraints. Some restraints also use another vehicle anchor to secure a top tether.

1. Attach and tighten the lower attachments to the lower anchors. If the child restraint does not have lower attachments or the desired seating position does not have lower anchors, secure the child restraint with the top tether and the safety belts. Refer to your child restraint manufacturer instructions and the instructions in this manual.
   1.1. Find the lower anchors for the desired seating position.

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1.2. Put the child restraint on the seat.

When installing a rear-facing child restraint, it may be necessary to move the front seat forward to properly install the child restraint per the child restraint manufacturer instructions. See *Seat Adjustment on page 3-3*.

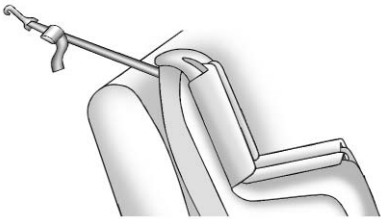
1.3. Attach and tighten the lower attachments on the child restraint to the lower anchors.

2. If the child restraint manufacturer recommends that the top tether be attached, attach and tighten the top tether to the top tether anchor, if equipped. Refer to the child restraint instructions and the following steps:

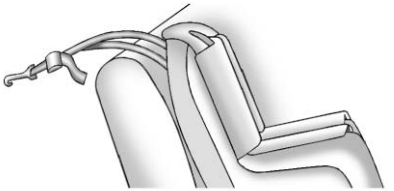
2.1. Find the top tether anchor.

2.2. Remove the cargo cover before installing the top tether. Place the cargo cover on the floor of the cargo area. The cargo cover should remain off while the top tether is in use.

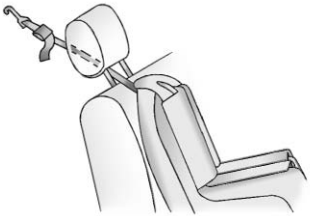
2.3. Route, attach, and tighten the top tether according to your child restraint instructions and the following instructions:



If the position you are using does not have a head restraint and you are using a single tether, route the tether over the seatback.

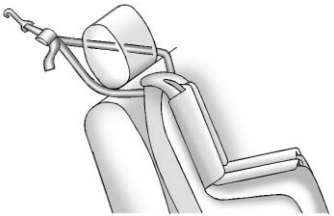


If the position you are using does not have a head restraint and you are using a dual tether, route the tether over the seatback.



Information Provided by: DEALER E-PROCESS

If the position you are using has an adjustable head restraint and you are using a single tether, raise the head restraint and route the tether under the head restraint and in between the head restraint posts.



If the position you are using has an adjustable head restraint and you are using a dual tether, raise the head restraint and route the tether under the head restraint and around the head restraint posts.

3. Before placing a child in the child restraint, make sure it is securely held in place. To check, grasp the child restraint at the LATCH path and attempt to move it side to side and back and forth. There should be no more than 2.5 cm (1 in) of movement for proper installation.

Replacing LATCH System Parts After a Crash

⚠ WARNING

A crash can damage the LATCH system in the vehicle. A damaged LATCH system may not properly secure the child restraint, resulting in serious injury or even death in a crash. To help make sure the LATCH system is working properly after a crash, see your dealer to have the system inspected and any necessary replacements made as soon as possible.

If the vehicle has the LATCH system and it was being used during a crash, new LATCH system parts may be needed.

New parts and repairs may be necessary even if the LATCH system was not being used at the time of the crash.

Securing Child Restraints (Rear Seat)

When securing a child restraint in a rear seating position, study the instructions that came with the child restraint to make sure it is compatible with this vehicle.

If the child restraint has the LATCH system, see *Lower Anchors and Tethers for Children (LATCH System) on page 3-43* for how and where to install the child restraint using LATCH. If a child restraint is secured in the vehicle using a safety belt and it uses a top tether,

Information Provided by DEALER E-PROCESS

see *Lower Anchors and Tethers for Children (LATCH System) on page 3-43* for top tether anchor locations.

Do not secure a child seat in a position without a top tether anchor if a national or local law requires that the top tether be anchored, or if the instructions that come with the child restraint say that the top strap must be anchored.

In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached.

If the child restraint does not have the LATCH system, you will be using the safety belt to secure the child restraint in this position. Be sure to follow the instructions that came with the child restraint. Secure the child in the child restraint when and as the instructions say.

If more than one child restraint needs to be installed in the rear seat, be sure to read *Where to Put the Restraint on page 3-41*.

1. Put the child restraint on the seat.

   For outboard second row seating positions, remove the safety belt from the guide. Do not secure the child restraint with the safety belt routed through the guide.

   When installing a rear-facing child restraint, it may be necessary to move the front seat forward to properly install the child restraint per the child restraint manufacturer instructions.

2. Pick up the latch plate, and run the lap and shoulder portions of the vehicle's safety belt through or around the restraint. The child restraint instructions will show you how.



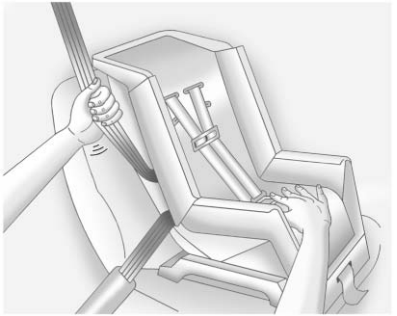
3. Push the latch plate into the buckle until it clicks.

   Position the release button on the buckle so that the safety belt could be quickly unbuckled if necessary.

Information Provided by:
DEALER E-PROCESS



4. Pull the shoulder belt all the way out of the retractor to set the lock. When the retractor lock is set, the belt can be tightened but not pulled out of the retractor.



5. To tighten the belt, push down on the child restraint, pull the shoulder portion of the belt to tighten the lap portion of the belt, and feed the shoulder belt back into the retractor. When installing a forward-facing child restraint, it may be helpful to use your knee to push down on the child restraint as you tighten the belt.

   Try to pull the belt out of the retractor to make sure the retractor is locked. If the retractor is not locked, repeat Steps 4 and 5.

6. If the child restraint has a top tether, follow the child restraint manufacturer's instructions regarding the use of the top tether. See *Lower Anchors and Tethers for Children (LATCH System) on page 3-43* for more information.
7. Before placing a child in the child restraint, make sure it is securely held in place. To check, grasp the child restraint at the safety belt path and attempt to move it side to side and back and forth. When the child restraint is properly installed, there should be no more than 2.5 cm (1 in) of movement.

To remove the child restraint, unbuckle the vehicle safety belt and let it return to the stowed position. If the top tether is attached to a top tether anchor, disconnect it.

Information Provided by:
DEALER E-PROCESS

Securing Child Restraints (Front Passenger Seat)

This vehicle has airbags. A rear seat is a safer place to secure a forward-facing child restraint. See *Where to Put the Restraint on page 3-41*.

Never put a rear-facing child seat in the front. This is because the risk to the rear-facing child is so great, if the airbag deploys.

⚠ WARNING

A child in a rear-facing child restraint can be seriously injured or killed if the right front passenger airbag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating airbag. A child in a forward-facing child restraint can be seriously injured or killed if the right front

(Continued)

WARNING (Continued)

passenger airbag inflates and the passenger seat is in a forward position.

Even if the passenger sensing system has turned off the right front passenger frontal airbag, no system is fail-safe. No one can guarantee that an airbag will not deploy under some unusual circumstance, even though it is turned off.

Secure rear-facing child restraints in a rear seat, even if the airbag is off. If you secure a forward-facing child restraint in the right front seat, always move the front passenger seat as far back as it will go. It is better to secure the child restraint in a rear seat.

See *Passenger Sensing System on page 3-29* for additional information.

If the child restraint has the LATCH system, see *Lower Anchors and Tethers for Children (LATCH System) on page 3-43* for how and where to install the child restraint using LATCH. If a child restraint is secured using a safety belt and it uses a top tether, see *Lower Anchors and Tethers for Children (LATCH System) on page 3-43* for top tether anchor locations.

Do not secure a child seat in a position without a top tether anchor if a national or local law requires that the top tether be anchored, or if the instructions that come with the child restraint say that the top strap must be anchored.

In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached.

Information Provided by: DEALER E-PROCESS

You will be using the lap-shoulder belt to secure the child restraint in this position. Follow the instructions that came with the child restraint.

1. Move the seat as far back as it will go before securing the forward-facing child restraint.
2. Put the child restraint on the seat.
3. Pick up the latch plate, and run the lap and shoulder portions of the vehicle's safety belt through or around the restraint. The child restraint instructions will show you how.



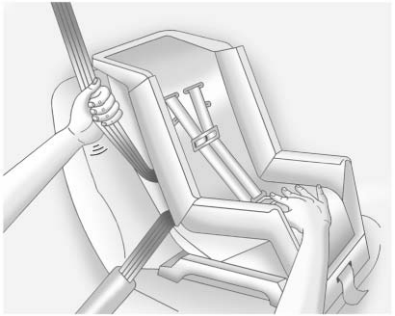
4. Push the latch plate into the buckle until it clicks.

   Position the release button on the buckle, so that the safety belt could be quickly unbuckled if necessary.



5. Pull the shoulder belt all the way out of the retractor to set the lock. When the retractor lock is set, the belt can be tightened but not pulled out of the retractor.

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6. To tighten the belt, push down on the child restraint, pull the shoulder portion of the belt to tighten the lap portion of the belt, and feed the shoulder belt back into the retractor. When installing a forward-facing child restraint, it may be helpful to use your knee to push down on the child restraint as you tighten the belt.

   Try to pull the belt out of the retractor to make sure the retractor is locked. If the retractor is not locked, repeat Steps 5 and 6.

   If the vehicle does not have a rear seat and the child restraint has a top tether, follow the child restraint manufacturer's instructions regarding the use of the top tether. See *Lower Anchors and Tethers for Children (LATCH System) on page 3-43* for more information.

7. Before placing a child in the child restraint, make sure it is securely held in place. To check, grasp the child restraint at the safety belt path and attempt to move it side to side and back and forth. When the child restraint is properly installed, there should be no more than 2.5 cm (1 in) of movement.

To remove the child restraint, unbuckle the vehicle safety belt and let it return to the stowed position.

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✍ NOTES

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Storage

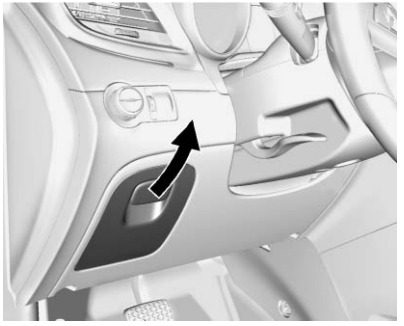
Storage Compartments
Instrument Panel Storage 4-1
Cupholders 4-2
Sunglasses Storage 4-2
Underseat Storage 4-2
Center Console Storage 4-3

Additional Storage Features
Cargo Cover 4-3
Cargo Management System 4-3
Convenience Net 4-4
Warning Triangle 4-4
First Aid Kit 4-5

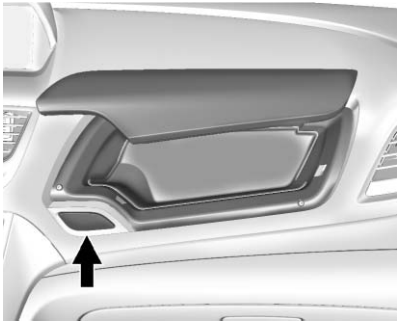
Roof Rack System
Roof Rack System 4-5

Storage Compartments

Instrument Panel Storage



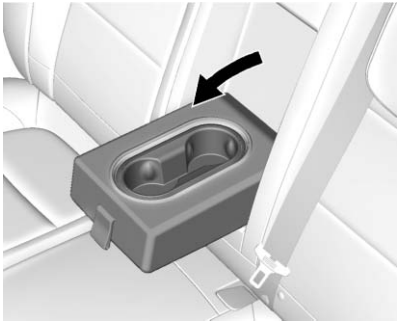
Pull the handle to open.



Push the button to open.

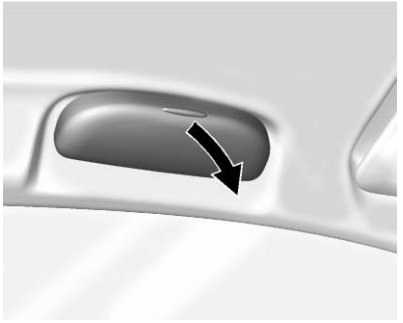
Information Provided by:
DEALER E-PROCESS

Cupholders



If equipped, pull the rear seat armrest down to access.

Sunglasses Storage



If equipped, the sunglasses storage is over the driver door.

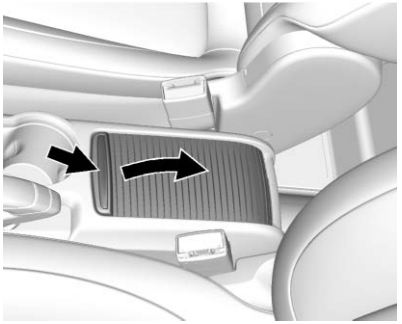
Underseat Storage



If equipped, there is storage under the front passenger seat. Lift the end of the tray and pull it forward to open. Push it in toward the seat to close.

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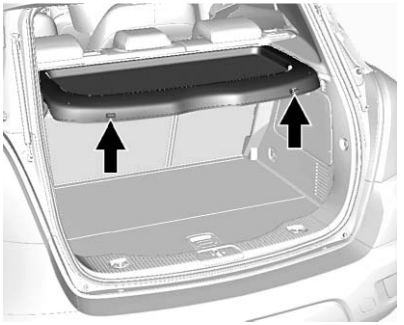
Center Console Storage



For vehicles with center console storage, push the button and slide rearward to open.

Additional Storage Features

Cargo Cover



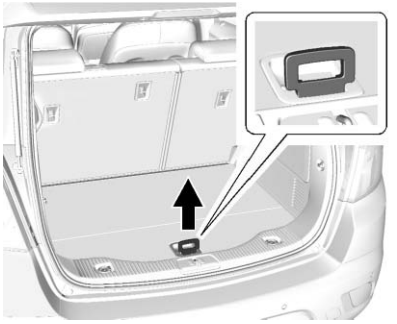
If equipped, use the cargo cover to cover items in the rear of the vehicle.

To install, hang the loops on the liftgate anchors.

Do not place objects on the cargo cover.

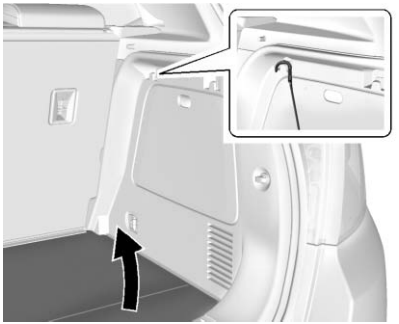
Cargo Management System

This vehicle has a cargo management system in the rear.



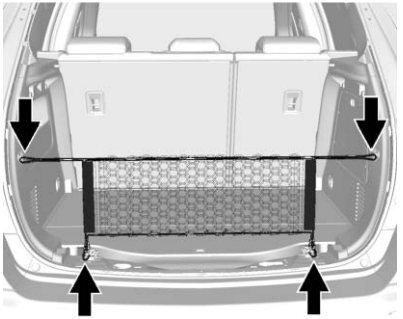
Pull the handle to lift.

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Fold the load floor. Place the hook from the load floor inside the hook on the side trim.

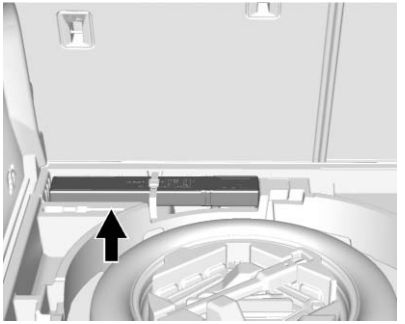
Convenience Net



The vehicle may have a convenience net.

The net is used to store small loads and should not be used for heavy loads.

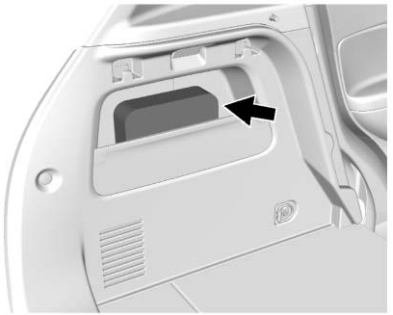
Warning Triangle



If equipped, the warning triangle is stowed in the rear storage compartment.

Information Provided by:
DEALER E-PROCESS

First Aid Kit



If equipped, the first aid kit is stowed in the side rear storage compartment.

Roof Rack System

⚠ WARNING

If something is carried on top of the vehicle that is longer or wider than the roof rack — like paneling, plywood, or a mattress — the wind can catch it while the vehicle is being driven. The item being carried could be violently torn off, and this could cause a collision and damage the vehicle. Never carry something longer or wider than the roof rack on top of the vehicle unless using a GM certified accessory carrier.

For vehicles with a roof rack, the rack can be used to load items. For roof racks that do not have crossrails included, GM Certified crossrails can be purchased as an accessory. See your dealer for additional information.

Notice: **Loading cargo on the roof rack that weighs more than 75 kg (165 lb) or hangs over the rear or sides of the vehicle may damage the vehicle. Load cargo so that it rests evenly between the crossrails, making sure to fasten cargo securely.**

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To prevent damage or loss of cargo when driving, check to make sure crossrails and cargo are securely fastened. Loading cargo on the roof rack will make the vehicle's center of gravity higher. Avoid high speeds, sudden starts, sharp turns, sudden braking, or abrupt maneuvers; otherwise it may result in loss of control. If driving for a long distance, on rough roads, or at high speeds, occasionally stop the vehicle to make sure the cargo remains in its place. Do not exceed the maximum vehicle capacity when loading the vehicle.

See *Vehicle Load Limits on page 9-10*.

Information Provided by:
DEALER E-PROCESS

Instructions and Controls

Controls

Steering Wheel Adjustment ... 5-2
Steering Wheel Controls 5-2
Heated Steering Wheel 5-3
Horn 5-3
Windshield Wiper/Washer 5-3
Rear Window Wiper/ Washer 5-4
Compass 5-5
Clock 5-6
Power Outlets 5-6

Warning Lights, Gauges, and Indicators

Warning Lights, Gauges, and Indicators 5-8
Instrument Cluster 5-9
Speedometer 5-10
Odometer 5-10
Trip Odometer 5-10
Tachometer 5-10
Fuel Gauge 5-10
Engine Coolant Temperature Gauge 5-11
Safety Belt Reminders 5-11
Airbag Readiness Light 5-12
Passenger Airbag Status Indicator 5-12
Charging System Light 5-13
Malfunction Indicator Lamp 5-14
Brake System Warning Light 5-16
Antilock Brake System (ABS) Warning Light 5-17
Power Steering Warning Light 5-17
Lane Departure Warning (LDW) Light 5-18
Vehicle Ahead Indicator 5-18
Traction Off Light 5-18
StabiliTrak® OFF Light 5-18
Traction Control System (TCS)/StabiliTrak® Light 5-19
Engine Coolant Temperature Warning Light 5-19
Tire Pressure Light 5-20
Engine Oil Pressure Light 5-20
Low Fuel Warning Light 5-21
Immobilizer Light 5-21
High-Beam On Light 5-21
Daytime Running Lamps (DRL) Indicator Light 5-21
Front Fog Lamp Light 5-22
Lamps On Reminder 5-22
Cruise Control Light 5-22

Information Displays

Driver Information Center (DIC) 5-22

Vehicle Messages

Vehicle Messages 5-25
Battery Voltage and Charging Messages 5-26
Brake System Messages 5-26
Compass Messages 5-26
Cruise Control Messages 5-26
Door Ajar Messages 5-27
Engine Cooling System Messages 5-27
Engine Oil Messages 5-27

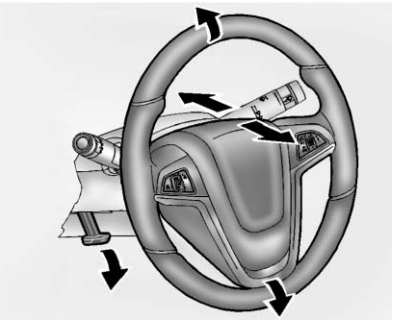
Information Provided by: DEALER E-PROCESS

Engine Power Messages 5-27
Fuel System Messages 5-28
Lamp Messages 5-28
Object Detection System Messages 5-28
Ride Control System Messages 5-29
Service Vehicle Messages ... 5-30
Tire Messages 5-30
Transmission Messages 5-31
Vehicle Reminder Messages 5-31

Vehicle Personalization
Vehicle Personalization 5-31

Controls

Steering Wheel Adjustment

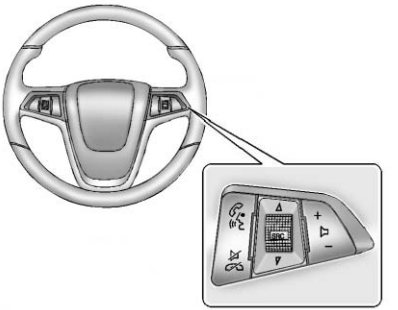


To adjust the steering wheel:

1. Pull the lever down.
2. Move the steering wheel up or down.
3. Pull or push the steering wheel closer or away from you.
4. Lift the lever up to lock the steering wheel in place.

Do not adjust the steering wheel while driving.

Steering Wheel Controls



Some audio controls can be adjusted at the steering wheel.

(Push to Talk): For vehicles with Bluetooth or OnStar, press to interact with those systems. See *Bluetooth on page 7-16*, *OnStar Overview on page 14-1*.

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/ (Mute/End Call): Press to silence the vehicle speakers only. Press again to turn the sound on. For vehicles with OnStar or Bluetooth systems, press to reject an incoming call, or end a current call.

SRC (Source): Press the thumbwheel inward to change the audio source.

Move the thumbwheel up or down to select the next or previous favorite radio station, CD, or MP3 track.

+ − (Volume): Press + to increase or − to decrease the volume.

Heated Steering Wheel



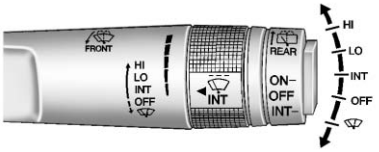
(Heated Steering Wheel): For vehicles with a heated steering wheel, press to turn it on or off. A light on the button displays when the feature is turned on.

The steering wheel takes about three minutes to start heating.

Horn

Press on the steering wheel pad to sound the horn.

Windshield Wiper/Washer

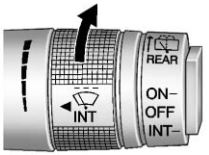


The windshield wiper/washer lever is on the right side of the steering column.

Move the lever to one of the following positions:

HI: Use for fast wipes.

LO: Use for slow wipes.



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INT (Intermittent Wipes): Move the lever up to INT for intermittent wipes, then turn the INT band up for more frequent wipes or down for less frequent wipes.

OFF: Use to turn the wipers off.

(Mist): For a single wipe, briefly move the wiper lever down. For several wipes, hold the wiper lever down.

(Windshield Washer): Pull the windshield wiper lever toward you to spray windshield washer fluid and activate the wipers. The wipers will continue until the lever is released or the maximum wash time is reached. When the windshield wiper lever is released, additional wipes may occur depending on how long the windshield washer had been activated. See *Washer Fluid on page 10-16* for information on filling the windshield washer fluid reservoir.

⚠ WARNING

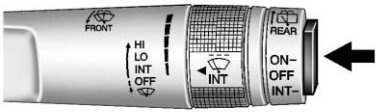
In freezing weather, do not use the washer until the windshield is warmed. Otherwise the washer fluid can form ice on the windshield, blocking your vision.

Clear snow and ice from the wiper blades before using them. If frozen to the windshield, carefully loosen or thaw them. Damaged wiper blades should be replaced. See *Wiper Blade Replacement on page 10-21*.

Heavy snow or ice can overload the wiper motor. A circuit breaker will stop the motor until it cools down.

Rear Window Wiper/ Washer

For vehicles with the rear wiper/ washer, the controls are on the end of the windshield wiper lever.



ON: Press the upper portion of the button for continuous rear window wipes.

OFF: The rear wiper turns off when the button is returned to the middle position.

INT (Intermittent Rear Wipes): Press the lower portion of the button to set a delay between wipes.

REAR (Rear Washer): Push the windshield wiper lever forward to spray washer fluid on the rear window. The lever returns to its starting position when released.

Reverse Gear Wipes

If the rear wiper control is off, the rear wiper will automatically operate continuously when the shift lever is in R (Reverse), and the front

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windshield wiper is performing low or high speed wipes. If the rear wiper control is off, the shift lever is in R (Reverse), and the front windshield wiper is performing interval wipes, then the rear wiper automatically performs interval wipes.

This feature can be changed. See *Vehicle Personalization on page 5-31*.

The windshield washer reservoir is used for the windshield and the rear window. Check the fluid level in the reservoir if either washer is not working. See *Washer Fluid on page 10-16*.

Compass

The vehicle may have a compass display in the Driver Information Center (DIC).

Setting the Compass Zone

Under certain circumstances, such as during a long trip or moving to a new area, the compass zone will need to be reset. If the compass is not set to the correct zone, it may give false readings. The compass zone should be set to the area in which the vehicle is currently traveling.

Use the DIC buttons to set the compass zone:

1. While the vehicle is in P (Park), press the MENU button to display the DIC menu.
2. Press and hold SET/CLR while the Set Area display is active.



3. Find the vehicle's current location and zone number on the map. Zones 1 through 15 are available.
4. Use △ ▽ to change to the correct zone number.
5. Press SET/CLR to confirm the setting.

Recalibrating the Compass

Whenever the DIC or the battery is disconnected, the compass must be recalibrated. To do this, the vehicle must be driven in circles. Only calibrate the compass in a magnetically clean and safe location, such as an open parking lot, where driving the vehicle in circles is not a danger. It is suggested to calibrate away from tall buildings, utility wires, manhole covers, or other industrial structures, if possible.

If code 125 is displayed on the DIC, the compass needs to be recalibrated.

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Use the DIC buttons to begin recalibrating the compass:

1. While the vehicle is in P (Park), press the MENU button to display the DIC menu.
2. Press and hold SET/CLR while the Set Cal display is active.
3. Drive the vehicle in tight circles. The display will begin to flash. Continue driving in circles for about 30 seconds. The compass direction will be displayed.

Clock

The infotainment system controls are used to access the time and date settings through the menu system. See *Operation on page 7-4* for information about how to use the menu system.

Setting the Clock

To set the time and date:

1. Press the CONFIG button and then turn the TUNE/MENU knob to select Time and Date Settings or press 🕘.
2. Select the desired feature.
3. Turn the TUNE/MENU knob to adjust the highlighted number.
4. Press the TUNE/MENU knob to select the next number.
5. To save and return to the Time and Date Settings menu, press ⇦ BACK at any time or press the TUNE/MENU knob after adjusting the value.
6. Repeat steps 2–5 for the remaining feature.

Setting the 12/24 Hour Format

1. Press the CONFIG button and select Time and Date Settings or press 🕘.
2. Select Set Time Format.
3. Turn the TUNE/MENU knob to highlight the 12 hour or 24 hour display format.
4. Press the TUNE/MENU knob to select display format.

Power Outlets

The accessory power outlets can be used to plug in electrical equipment, such as a cell phone or MP3 player.

There is one accessory power outlet on the center stack below the climate control. This outlet is powered when the key is in ON/RUN or ACC/ACCESSORY, or until the driver door is opened within 10 minutes of turning off the vehicle. See *Retained Accessory Power (RAP) on page 9-19*.

Notice: **Leaving electrical equipment plugged in for an extended period of time while the vehicle is off will drain the**

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battery. Always unplug electrical equipment when not in use and do not plug in equipment that exceeds the maximum 20 ampere rating.

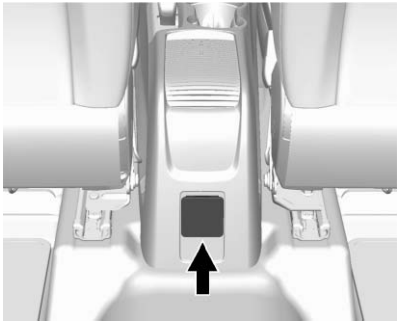
Certain electrical accessories may not be compatible with the accessory power outlet and could overload vehicle or adapter fuses. If a problem is experienced, see your dealer.

When adding electrical equipment, be sure to follow the installation instructions included with the equipment. See *Add-On Electrical Equipment on page 9-47*.

Notice: **Hanging heavy equipment from the power outlet can cause damage not covered by the vehicle warranty. The power outlets are designed for accessory power plugs only, such as cell phone charge cords.**

Power Outlet 120 Volt Alternating Current

The vehicle may have a power outlet on the rear of the center console. It can be used to plug in electrical equipment that uses a maximum limit of 150 watts.



An indicator light on the outlet turns on to show it is in use. The light comes on when the ignition is in ON/RUN and equipment requiring less than 150 watts is plugged into the outlet, and no system fault is detected.

The indicator light does not come on when the ignition is in LOCK/OFF or if the equipment is not fully seated into the outlet.

If equipment is connected using more than 150 watts or a system fault is detected, a protection circuit shuts off the power supply and the indicator light turns off. To reset the circuit, unplug the item and plug it back in or turn the Retained Accessory Power (RAP) off and then back on. See *Retained Accessory Power (RAP) on page 9-19*. The power restarts when equipment using 150 watts or less is plugged into the outlet and a system fault is not detected.

Information Provided by:
DEALER E-PROCESS

The power outlet is not designed for and may not work properly, if the following are plugged in:

- Equipment with high initial peak wattage such as: compressor-driven refrigerators and electric power tools.
- Other equipment requiring an extremely stable power supply such as: microcomputer-controlled electric blankets, touch sensor lamps, etc.

Warning Lights, Gauges, and Indicators

Warning lights and gauges can signal that something is wrong before it becomes serious enough to cause an expensive repair or replacement. Paying attention to the warning lights and gauges could prevent injury.

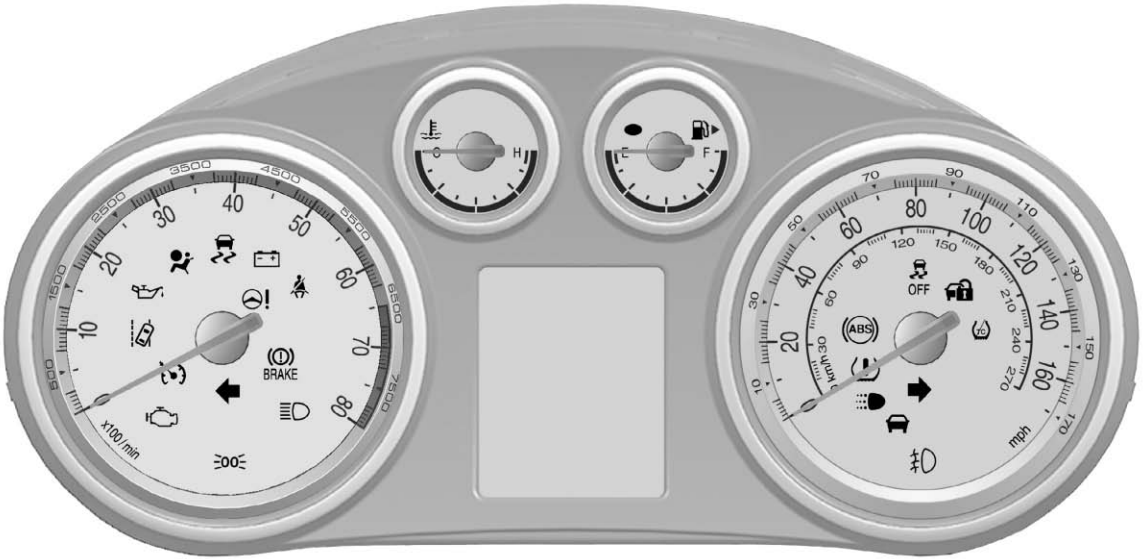
Warning lights come on when there could be a problem with a vehicle function. Some warning lights come on briefly when the engine is started to indicate they are working.

Gauges can indicate when there could be a problem with a vehicle function. Often gauges and warning lights work together to indicate a problem with the vehicle.

When one of the warning lights comes on and stays on while driving, or when one of the gauges shows there may be a problem, check the section that explains what to do. Follow this manual's advice. Waiting to do repairs can be costly and even dangerous.

Information Provided by:
DEALER E-PROCESS

Instrument Cluster



English Shown, Metric Similar

Information Provided by:
DEALER E-PROCESS

Speedometer

The speedometer shows the vehicle speed in both kilometers per hour (km/h) and miles per hour (mph).

Odometer

The odometer shows how far the vehicle has been driven, in either kilometers or miles.

Trip Odometer

The trip odometer can show how far the vehicle has been driven since the trip odometer was last reset.

The trip odometer is accessed and reset through the Driver Information Center (DIC). See *Driver Information Center (DIC) on page 5-22*.

Tachometer

The tachometer displays the engine speed in revolutions per minute (rpm).

Fuel Gauge



Metric



English

Information Provided by:
DEALER E-PROCESS

The fuel gauge indicates about how much fuel is left when the ignition is turned to ON/RUN.

When the tank nears empty, the low fuel warning light will come on. There is still a little fuel left, but the vehicle's fuel tank should be filled soon. See *Low Fuel Warning Light on page 5-21* for more information.

An arrow on the fuel gauge indicates on which side of the vehicle the fuel door is located.

Here are four things that some owners ask about. None of these show a problem with the fuel gauge:

- At the service station, the gas pump shuts off before the gauge reads full.
- It takes a little more or less fuel to fill up than the gauge indicated. For example, the gauge may have indicated the tank was half full, but it actually took a little more or less than half the tank's capacity to fill the tank.

- The indicator moves a little when turning a corner or speeding up.
- The gauge goes back to empty when the ignition is turned off.

Engine Coolant Temperature Gauge



Metric



English

This gauge shows the engine coolant temperature.

If the indicator needle moves to the hot side of the gauge toward the shaded area, the engine is too hot.

If the vehicle has been operated under normal driving conditions, pull off the road, stop the vehicle, and turn off the engine as soon as possible.

Safety Belt Reminders

Driver Safety Belt Reminder Light

There is a driver safety belt reminder light on the instrument cluster.



When the vehicle is started, this light flashes and a chime may come on to remind the driver to fasten their safety belt. Then the light stays on solid until the belt is buckled. This cycle may continue several times if the driver remains or becomes unbuckled while the vehicle is moving.

If the driver safety belt is buckled, neither the light nor the chime comes on.

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Passenger Safety Belt Reminder Light

The vehicle may also have a passenger safety belt reminder light.



When the vehicle is started, this light flashes and a chime may come on to remind passengers to fasten their safety belt. Then the light stays on solid until the belt is buckled.

This cycle continues several times if the front passenger remains or becomes unbuckled while the vehicle is moving.

If the front passenger safety belt is buckled, neither the chime nor the light comes on.

The front passenger safety belt warning light and chime may turn on if an object is put on the seat such as a briefcase, handbag, grocery bag, laptop, or other electronic device. To turn off the warning light and/or chime, remove the object from the seat or buckle the safety belt.

Airbag Readiness Light

This light shows if there is an electrical problem with the airbag system. The system check includes the airbag sensor(s), passenger sensing system (if equipped), the pretensioners, the airbag modules, the wiring, and the crash sensing and diagnostic module. For more information on the airbag system, see *Airbag System on page 3-23*.



The airbag readiness light comes on for several seconds when the vehicle is started. If the light does not come on then, have it fixed immediately.

⚠ WARNING

If the airbag readiness light stays on after the vehicle is started or comes on while driving, it means the airbag system might not be working properly. The airbags in the vehicle might not inflate in a crash, or they could even inflate without a crash. To help avoid injury, have the vehicle serviced right away.

Passenger Airbag Status Indicator

The vehicle has a passenger sensing system. See *Passenger Sensing System on page 3-29* for

Information Provided by: DEALER E-PROCESS

important safety information. The instrument panel has a passenger airbag status indicator.



United States



Canada and Mexico

When the vehicle is started, the passenger airbag status indicator will light ON and OFF, or the symbol for on and off, for several seconds as a system check. If you use remote start, if equipped, to start the vehicle, you may not see the system check. Then, after several seconds, the status indicator will light either ON or OFF, or the on or off symbol to let you know the status of the front outboard passenger frontal airbag and knee airbag.

If the word ON or the on symbol is lit on the passenger airbag status indicator, it means that the front outboard passenger frontal airbag and knee airbag are allowed to inflate.

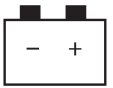
If the word OFF or the off symbol is lit on the passenger airbag status indicator, it means that the passenger sensing system has turned off the front outboard passenger frontal airbag and passenger knee airbag.

If, after several seconds, both status indicator lights remain on, or if there are no lights at all, there may be a problem with the lights or the passenger sensing system. See your dealer for service.

⚠ WARNING

If the airbag readiness light ever comes on and stays on, it means that something may be wrong with the airbag system. To help avoid injury to yourself or others, have the vehicle serviced right away. See *Airbag Readiness Light on page 5-12* for more information, including important safety information.

Charging System Light



This light will come on briefly when the ignition is turned on, and the engine is not running, as a check to show it is working.

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It should go out when the engine is started. If it stays on, or comes on while driving, there may be a problem with the electrical charging system. Have it checked by your dealer. Driving while this light is on could drain the battery. If a short distance must be driven with the light on, turn off all accessories, such as the radio and air conditioner, to help reduce the drain on the battery.

Malfunction Indicator Lamp

A computer system called OBD II (On-Board Diagnostics-Second Generation) monitors the operation of the vehicle to ensure emissions are at acceptable levels, helping to maintain a clean environment. The malfunction indicator lamp comes on when the vehicle is placed in ON/RUN, as a check to show it is working. If it does not, have the vehicle serviced by your dealer. See *Ignition Positions on page 9-15* for more information.



If the malfunction indicator lamp comes on while the engine is running, this indicates that the OBD II system has detected a problem and diagnosis and service might be required.

Malfunctions often are indicated by the system before any problem is apparent. Being aware of the light can prevent more serious damage to the vehicle. This system also assists the service technician in correctly diagnosing any malfunction.

Notice: **If the vehicle is continually driven with this light on, the emission controls might not work as well, the vehicle fuel economy might not be as good, and the engine might not run as smoothly. This could lead to costly repairs that might not be covered by the vehicle warranty.**

Notice: **Modifications made to the engine, transmission, exhaust, intake, or fuel system of the vehicle or the replacement of the original tires with other than those of the same Tire Performance Criteria (TPC) can affect the vehicle's emission controls and can cause this light to come on. Modifications to these systems could lead to costly repairs not covered by the vehicle warranty. This could also result in a failure to pass a required Emission Inspection/ Maintenance test. See *Accessories and Modifications on page 10-2*.**

This light comes on during a malfunction in one of two ways:

Light Flashing: A misfire condition has been detected. A misfire increases vehicle emissions and

Information Provided by: DEALER E-PROCESS

could damage the emission control system on the vehicle. Diagnosis and service might be required.

To prevent more serious damage to the vehicle:

- Reduce vehicle speed.
- Avoid hard accelerations.
- Avoid steep uphill grades.

If the light continues to flash, find a safe place to stop and park the vehicle. Turn the vehicle off, wait at least 10 seconds, and restart the engine. If the light is still flashing, follow the previous steps and see your dealer for service as soon as possible.

Light On Steady: An emission control system malfunction has been detected on the vehicle. Diagnosis and service might be required.

The following may correct an emission control system malfunction:

- Check that the fuel cap is fully installed. See *Filling the Tank on page 9-44*. The diagnostic system can determine if the fuel cap has been left off or improperly installed. A loose or missing fuel cap allows fuel to evaporate into the atmosphere. A few driving trips with the cap properly installed should turn the light off.
- Check that good quality fuel is used. Poor fuel quality causes the engine not to run as efficiently as designed and may cause stalling after start-up, stalling when the vehicle is changed into gear, misfiring, hesitation on acceleration, or stumbling on acceleration. These conditions might go away once the engine is warmed up.

If one or more of these conditions occurs, change the fuel brand used. It may require at least one full tank of the proper fuel to turn the light off.

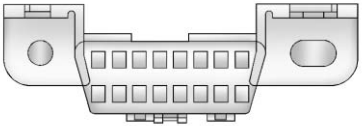
See *Recommended Fuel on page 9-42*.

If none of the above have made the light turn off, your dealer can check the vehicle. The dealer has the proper test equipment and diagnostic tools to fix any mechanical or electrical problems that might have developed.

Emissions Inspection and Maintenance Programs

Depending on where you live, your vehicle may be required to participate in an emission control system inspection and maintenance program. For the inspection, the emission system test equipment will likely connect to the vehicle's Data Link Connector (DLC).

Information Provided by:
DEALER E-PROCESS



The DLC is under the instrument panel to the left of the steering wheel. See your dealer if assistance is needed.

The vehicle may not pass inspection if:

- The malfunction indicator lamp is on with the engine running, or if the light does not come on when the ignition is turned to ON/RUN while the engine is off. See your dealer for assistance in verifying proper operation of the malfunction indicator lamp.
- The OBD II (On-Board Diagnostics) system determines that critical emission control systems have not been completely diagnosed. The vehicle would be considered not ready for inspection. This can happen if the 12-volt battery has recently been replaced or run down. The diagnostic system is designed to evaluate critical emission control systems during normal driving. This can take several days of routine driving. If this has been done and the vehicle still does not pass the inspection for lack of OBD II system readiness, your dealer can prepare the vehicle for inspection.

Brake System Warning Light

The vehicle brake system consists of two hydraulic circuits. If one circuit is not working, the remaining circuit can still work to stop the vehicle. For normal braking performance, both circuits need to be working



Metric



English

The brake indicator light should come on briefly as the engine is started. If it does not come on have the vehicle serviced by your dealer.

When the ignition is on, the brake system warning light comes on when the parking brake is set. The light stays on if the parking brake does not fully release. If it stays on after the parking brake is fully released, there is a brake problem. Have the brake system inspected immediately.

Information Provided by:
DEALER E-PROCESS

⚠ WARNING

The brake system might not be working properly if the brake system warning light is on. Driving with the brake system warning light on can lead to a crash. If the light is still on after the vehicle has been pulled off the road and carefully stopped, have the vehicle towed for service.

If the light comes on while driving, a chime sounds. Pull off the road and stop. The pedal might be harder to push or go closer to the floor. It might also take longer to stop. If the light is still on, have the vehicle towed for service. See *Towing the Vehicle on page 10-64*.

Antilock Brake System (ABS) Warning Light



This light comes on briefly when the engine is started.

If the light stays on, turn the ignition to LOCK/OFF or if the light comes on, stop as soon as possible and turn the ignition off. Then start the engine again to reset the system. If the light still stays on, or comes on again while driving, the vehicle needs service. See your dealer. If the regular brake system warning light is not on, the brakes will still work, but the antilock brakes will not work. If the regular brake system warning light is also on, the antilock brakes will not work and there is a problem with the regular brakes. See *Brake System Warning Light on page 5-16*.

The ABS warning light will come on briefly when the ignition is turned to ON/RUN. This is normal. If the light does not come on then, have it fixed so it will be ready to warn if there is a problem.

Power Steering Warning Light



This light comes on briefly when the ignition is turned to ON/RUN as a check to show it is working.

If it does not come on have the vehicle serviced by your dealer.

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If this light stays on, or comes on while driving, the system may not be working. If this happens, see your dealer for service.

Lane Departure Warning (LDW) Light



For vehicles with the LDW system, this light briefly comes on amber while starting the vehicle. If it does not, have the vehicle serviced by your dealer. If the system is working normally, the indicator light then turns off.

This light also comes on green when the system is switched on and ready to operate.

See *Lane Departure Warning (LDW) on page 9-40*.

Vehicle Ahead Indicator



If available, this light displays green when a vehicle is detected ahead.

See *Forward Collision Alert (FCA) System on page 9-34*.

Traction Off Light



This light comes on briefly while starting the engine. If it does not, have the vehicle serviced by your dealer. If the system is working normally, the indicator light then turns off.

The traction off light comes on when the Traction Control System (TCS) has been turned off by pressing and releasing the TCS/StabiliTrak button.

This light and the StabiliTrak OFF light come on when StabiliTrak is turned off.

If the TCS is off, wheel spin is not limited. Adjust driving accordingly.

See *Traction Control System (TCS) on page 9-28* and *StabiliTrak® System on page 9-30*.

StabiliTrak® OFF Light



This light comes on briefly while starting the engine. If it does not, have the vehicle serviced by your dealer.

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This light comes on when the StabiliTrak system is turned off. If StabiliTrak is off, the Traction Control System (TCS) is also off.

If the TCS is off, the system does not assist in controlling the vehicle. Turn on the TCS and the StabiliTrak systems and the warning light turns off.

See *Traction Control System (TCS) on page 9-28* and *StabiliTrak® System on page 9-30*.

Traction Control System (TCS)/StabiliTrak® Light



The StabiliTrak or Traction Control System (TCS) indicator/warning light comes on briefly when the engine is started.

If the light does not come on, have the vehicle serviced by your dealer. If the system is working normally, the indicator light turns off.

If the light is on and not flashing, the TCS, and potentially the StabiliTrak system have been disabled.

If the indicator/warning light is on and flashing, the TCS and/or the StabiliTrak system is actively working.

See *StabiliTrak® System on page 9-30* and *Traction Control System (TCS) on page 9-28*.

Engine Coolant Temperature Warning Light



This light comes on briefly while starting the vehicle.

If it does not, have the vehicle serviced by the dealer. If the system is working normally the indicator light goes off.

Notice: **The engine coolant temperature warning light indicates that the vehicle has overheated. Driving with this light on can damage the engine and it may not be covered by the vehicle warranty. See *Engine Overheating on page 10-15*.**

The engine coolant temperature warning light comes on when the engine has overheated.

If this happens, pull over and turn off the engine as soon as possible. See *Engine Overheating on page 10-15*.

Information Provided by: DEALER E-PROCESS

Tire Pressure Light



For vehicles with the Tire Pressure Monitor System (TPMS), this light comes on briefly when the engine is started. It provides information about tire pressures and the TPMS.

When the Light Is On Steady

This indicates that one or more of the tires are significantly underinflated.

Stop as soon as possible, and inflate the tires to the pressure value shown on the Tire and Loading Information label. See *Tire Pressure on page 10-42*.

When the Light Flashes First and Then Is On Steady

If the light flashes for about a minute and then stays on, there may be a problem with the TPMS. If the problem is not corrected, the light will come on at every ignition cycle. See *Tire Pressure Monitor Operation on page 10-44*.

Engine Oil Pressure Light



The oil pressure light should come on briefly as the engine is started. If it does not come on, have the vehicle serviced by your dealer.

Notice: **Lack of proper engine oil maintenance can damage the engine. Driving with the engine oil low can also damage the engine. The repairs would not be covered by the vehicle warranty. Check the oil level as soon as possible. Add oil if required, but if the oil level is within the operating range and the oil pressure is still low, have the vehicle serviced. Always follow the maintenance schedule for changing engine oil.**

If the vehicle has low engine oil pressure, this light will stay on after the engine is started, or come on while driving.

This indicates that the engine is not receiving enough oil. The engine could be low on oil, or could have some other oil problem. Have it fixed immediately by your dealer.

The oil pressure light could also come on in other situations:

- When the ignition is on but the engine is not running, the light will come on as a test to show it is working. The light will go out when the ignition is turned on. If it does not come on with the

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ignition on, there may be a problem with the fuse or bulb. Have it fixed right away.

- If the vehicle comes to a hard stop, the light may come on for a moment. This is normal.

Low Fuel Warning Light



Metric Shown, English Similar

This light comes on for a few seconds when the ignition is turned on as a check to indicate it is working. If it does not come on, have it fixed.

The low fuel warning light comes on and a chime sounds periodically when the vehicle is low on fuel. The light turns off when fuel is added to the fuel tank.

Immobilizer Light



The immobilizer light should come on briefly as the engine is started. If it does not come on, have the vehicle serviced by your dealer. If the system is working normally, the indicator light turns off.

If the light stays on and the engine does not start, there could be a problem with the immobilizer system. See *Immobilizer Operation on page 2-10*.

High-Beam On Light



This light comes on when the high-beam headlamps are in use.

See *Headlamp High/Low-Beam Changer on page 6-2*.

Daytime Running Lamps (DRL) Indicator Light



This light turns on whenever the Daytime Running Lamps are in use.

See *Daytime Running Lamps (DRL) on page 6-2*.

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DEALER E-PROCESS

Front Fog Lamp Light



For vehicles with front fog lamps, this light comes on when the front fog lamps are in use.

The light goes out when the front fog lamps are turned off. See *Front Fog Lamps on page 6-4* for more information.

Lamps On Reminder



This light comes on when the exterior lamps are in use. See *Exterior Lamp Controls on page 6-1*.

Cruise Control Light



For vehicles with cruise control, the cruise control light is white when the cruise control is on and ready, and turns green when the cruise control is set and active.

The light turns off when the cruise control is turned off. See *Cruise Control on page 9-32*.

Information Displays

Driver Information Center (DIC)

The Driver Information Center (DIC) displays information about the vehicle. It also displays warning messages if a system problem is detected. See *Vehicle Messages on page 5-25*. All messages appear in the DIC display in the center of the instrument cluster.

The vehicle may also have features that can be customized through the controls on the radio. See *Vehicle Personalization on page 5-31*.

DIC Operation and Displays

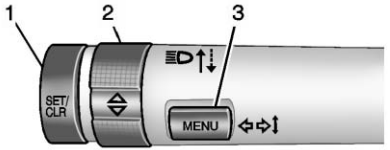
The DIC has different displays which can be accessed by using the DIC buttons on the turn signal lever. The DIC displays trip, fuel, and vehicle system information, and warning messages if a system problem is detected.

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The bottom of the DIC display shows the position of the shift lever and the odometer. It may also show the direction the vehicle is driving.

In cold weather the DIC display may change slowly. This is normal and will move more quickly as the vehicle's interior temperature rises.

DIC Buttons



1. **SET/CLR (Set/Clear):** Press to set or clear the menu item when it is displayed.
2. △ / ▽ **(Band):** Turn the band to scroll through the menu items. A small marker will move across the bottom of the page as you scroll through the items. This shows where each page is in the menu.
3. **MENU:** Press to get to the Trip/Fuel Menu and the Vehicle Information Menu. This button is also used to return to or exit the last screen displayed on the DIC.

Trip/Fuel Menu Items

Press MENU on the turn signal lever until the Trip/Fuel Menu is displayed. Use △ / ▽ to scroll through the following menu items:

- Digital Speedometer
- Trip 1
- Trip 2
- Fuel Range
- Fuel Economy
- Average Vehicle Speed
- Timer
- Navigation

Digital Speedometer

The speedometer shows how fast the vehicle is moving in either kilometers per hour (km/h) or miles per hour (mph). The speedometer cannot be reset.

Trip 1 and Trip 2

These displays show the current distance traveled, in either kilometers (km) or miles (mi), since the last reset for the trip odometer. The trip odometer can be reset to zero by pressing SET/CLR, or the trip odometer reset stem in the cluster, while the trip odometer display is showing.

Fuel Range

This display shows the approximate distance the vehicle can be driven without refueling. The fuel range estimate is based on an average of the vehicle's fuel economy over recent driving history and the amount of fuel remaining in the fuel tank. Fuel range cannot be reset.

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Fuel Economy

This display shows instantaneous and average fuel economy in liters per 100 kilometers (L/100 km) or miles per gallon (mpg).

The instantaneous fuel economy reflects only the current fuel economy and changes frequently as driving conditions change. Unlike average economy, this display cannot be reset.

Average fuel economy is calculated based on the number of L/100 km (mpg) recorded since the last time this menu item was reset. The average fuel economy can be reset by pressing SET/CLR while the Average Fuel Economy display is showing.

Average Vehicle Speed

This display shows the average speed of the vehicle in kilometers per hour (km/h) or miles per hour (mph). This average is calculated based on the various vehicle speeds recorded since the last reset of this value. The average speed can be reset by pressing SET/CLR while the Average Vehicle Speed display is showing.

Timer

This display can be used as a timer. To start the timer, press SET/CLR while Timer is displayed. The display will show the amount of time that has passed since the timer was last reset, not including time the ignition is off. Time will continue to be counted as long as the ignition is on, even if another display is being shown on the DIC. The timer will record up to 99 hours, 59 minutes, and 59 seconds (99:59:59) after which the display will return to zero. To stop the timer, press SET/CLR briefly while Timer is displayed. To reset the timer to zero, press and hold SET/CLR.

Navigation

This display is used for the Navigation System Turn-by-Turn guidance. See the infotainment manual, if the vehicle has navigation, for more information.

Vehicle Information Menu Items

Press MENU on the turn signal lever until the Vehicle Information Menu is displayed. Use △ / ▽ to scroll through the following menu items:

- Unit
- Remaining Oil Life
- Tire Pressure

Unit

Move △ / ▽ to switch between metric or US when the Unit display is active. Press SET/CLR to confirm the setting. This will change the displays on the cluster and DIC to either metric or English (US) measurements.

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Remaining Oil Life

This display shows an estimate of the oil's remaining useful life. If REMAINING OIL LIFE 99% is displayed, that means 99% of the current oil life remains.

When the remaining oil life is low, the CHANGE ENGINE OIL SOON message will appear on the display. See *Engine Oil Messages on page 5-27*. The oil should be changed as soon as possible. See *Engine Oil on page 10-7*. In addition to the Engine Oil Life System monitoring the oil life, additional maintenance is recommended in the Maintenance Schedule in this manual. See *Maintenance Schedule on page 11-3* for more information.

Remember, the Remaining Oil Life display must be reset after each oil change. It will not reset itself. Also, be careful not to reset the Remaining Oil Life display accidentally at any time other than when the oil has just been changed. It cannot be reset accurately until the next oil change. To reset the Engine Oil Life System, press SET/CLR while the Remaining Oil Life display is active. See *Engine Oil Life System on page 10-9*.

Tire Pressure

The display will show a vehicle with the approximate pressures of all four tires. Tire pressure is displayed in either kilopascal (kPa) or pounds per square inch (psi). See *Tire Pressure Monitor System on page 10-43* and *Tire Pressure Monitor Operation on page 10-44* for more information.

Compass

The vehicle has a compass display in the DIC. See *Compass on page 5-5* for more information.

Vehicle Messages

Messages displayed on the DIC indicate the status of the vehicle or some action that may be needed to correct a condition. Multiple messages may display one after the other.

The messages that do not require immediate action can be acknowledged and cleared by pressing SET/CLR. The messages that require immediate action cannot be cleared until that action is performed. All messages should be taken seriously and clearing the messages does not correct the problem.

The following are some of the vehicle messages that may be displayed depending on your vehicle content.

Information Provided by: DEALER E-PROCESS

Battery Voltage and Charging Messages

BATTERY LOW START VEHICLE

If this message displays, start the vehicle to prevent further draining of the battery.

BATTERY SAVER ACTIVE

This message displays when the vehicle has detected that the battery voltage is dropping beyond a reasonable point. The battery saver system starts reducing features of the vehicle that may be noticed. At the point that features are disabled, this message displays. Turn off unnecessary accessories to allow the battery to recharge.

LOW BATTERY

This message is displayed when the battery voltage is low. See *Battery on page 10-19*.

Brake System Messages

BRAKE FLUID LOW

This message is displayed when the brake fluid level is low. See *Brake Fluid on page 10-18*.

BRAKES OVERHEATED

This message may display if the brakes are too hot.

HILL START ASSIST ACTIVE

This message is displayed when Hill Start Assist (HSA) is preventing the vehicle from rolling while driving off on a grade. See *Hill Start Assist (HSA) on page 9-28*.

RELEASE PARKING BRAKE

This message is displayed if the parking brake is applied. Release it before you attempt to drive. See *Parking Brake on page 9-27* for more information.

SERVICE BRAKE ASSIST

This message is displayed when there is a problem with the brake assist system. Take the vehicle to your dealer.

Compass Messages

CAL

This message is displayed when the compass needs to be calibrated. See *Compass on page 5-5*.

– –

Dashes will be displayed if the compass needs service. See your dealer for service.

Cruise Control Messages

CRUISE SET TO XXX

This message displays when the cruise control is set and shows the speed it was set to. See *Cruise Control on page 9-32*.

Information Provided by: DEALER E-PROCESS

Door Ajar Messages

DOOR(S) OPEN

A vehicle symbol will be displayed on the DIC showing which door is open along with this message. Close the door completely.

REAR ACCESS OPEN

This message will display when the liftgate is open. Close the liftgate completely.

Engine Cooling System Messages

ENGINE OVERHEATED — IDLE ENGINE

This message displays when the engine coolant temperature is too hot. Stop and allow the vehicle to idle until it cools down.

ENGINE OVERHEATED — STOP ENGINE

This message displays and a continuous chime sounds if the engine cooling system reaches unsafe temperatures for operation. Stop and turn off the vehicle as soon as it is safe to do so to avoid severe damage. This message clears when the engine has cooled to a safe operating temperature.

Engine Oil Messages

CHANGE ENGINE OIL SOON

This message displays when the engine oil needs to be changed. When the engine oil is changed, be sure to reset the Oil Life System. See *Engine Oil Life System on page 10-9*, *Driver Information Center (DIC) on page 5-22*, *Engine Oil on page 10-7*, and *Maintenance Schedule on page 11-3*.

ENGINE OIL HOT, IDLE ENGINE

This message displays when the engine oil temperature is too hot. Stop and allow the vehicle to idle until it cools down.

ENGINE OIL LOW ADD OIL

On some vehicles, this message displays when the engine oil level may be too low. Check the oil level before filling to the recommended level. If the oil is not low and this message remains on, take the vehicle to your dealer for service. See *Engine Oil on page 10-7*.

Engine Power Messages

ENGINE POWER IS REDUCED

This message displays when the vehicle's engine power is reduced. Reduced engine power can affect the vehicle's ability to accelerate.

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If this message is on, but there is no reduction in performance, proceed to your destination. The performance may be reduced the next time the vehicle is driven. The vehicle may be driven at a reduced speed while this message is on, but maximum acceleration and speed may be reduced. Anytime this message stays on, the vehicle should be taken to your dealer for service as soon as possible.

Fuel System Messages

FUEL LEVEL LOW

This message displays when the vehicle is low on fuel. Refuel as soon as possible.

TIGHTEN GAS CAP

This message displays when the fuel cap is not on tight. Tighten the fuel cap.

Lamp Messages

AUTOMATIC LIGHT CONTROL ON

This message is displayed when the automatic light control has been turned on. See *Automatic Headlamp System on page 6-3*.

AUTOMATIC LIGHT CONTROL OFF

This message is displayed when the automatic light control has been turned off. See *Automatic Headlamp System on page 6-3*.

XXX TURN INDICATOR FAILURE

When one of the turn signals is out, this message displays to show which bulb needs to be replaced. See *Bulb Replacement on page 10-23* and *Replacement Bulbs on page 10-26* for more information on turn signal bulb replacement.

TURN SIGNAL ON

This message is displayed if the turn signal has been left on. Turn off the turn signal.

Object Detection System Messages

FORWARD COLLISION ALERT OFF

If equipped with the Forward Collision Alert (FCA) system, this message may display if the FCA system cannot activate due to a temporary condition. See *Forward Collision Alert (FCA) System on page 9-34*.

FRONT CAMERA BLOCKED, CLEAN WINDSHIELD

This message displays when the Lane Departure Warning (LDW) and Forward Collision Alert (FCA) systems are disabled because the camera view is blocked and cannot operate properly. It may also activate during heavy rain or due to

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road spray. To clean the system, clean the outside of the windshield area in front of the LDW/FCA camera sensor.

LANE DEPARTURE WARNING UNAVAILABLE

If equipped with the Lane Departure Warning (LDW) system, this message may display if the LDW system cannot activate due to a temporary condition. See *Lane Departure Warning (LDW) on page 9-40*.

PARK ASSIST OFF

This message displays when the park assist system has been turned off or when there is a temporary condition causing the system to be disabled. See *Ultrasonic Parking Assist on page 9-36*.

PARK ASSIST FAULT CLEAN BUMPER

This message displays if snow, mud, ice, or dirt is blocking the sensors on the bumpers. Clean the bumpers.

SERVICE LANE DEPARTURE WARNING

This message displays when the Lane Departure Warning (LDW) system is disabled and need service. See your dealer.

SERVICE PARKING ASSIST

This message displays if there is a problem with the Ultrasonic Front and Rear Parking Assist (UFRPA) system. Do not use this system to help you park. See *Ultrasonic Parking Assist on page 9-36*.

Ride Control System Messages

ALL WHEEL DRIVE OFF

If your vehicle has the All-Wheel Drive (AWD) system, this message displays when the rear drive system is overheating. This message turns off when the rear drive system cools down. If the warning message stays on for a while, you need to reset the warning message. To reset the warning message, turn the ignition off and then back on again. If the message stays on, see your dealer right away. See *All-Wheel Drive on page 9-26* for more information.

SERVICE ALL WHEEL DRIVE SYSTEM

If your vehicle has the All-Wheel Drive (AWD) system, this message displays if a problem occurs with this system. If this message appears, stop as soon as possible and turn off the vehicle. Restart the vehicle and check for the message on the DIC display. If the message

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is still displayed or appears again when you begin driving, the AWD system needs service. See your dealer.

TRACTION CONTROL OFF

This message displays when the Traction Control System (TCS) is turned off. Adjust your driving accordingly.

TRACTION CONTROL ON

This message displays when the Traction Control System (TCS) is first turned on. See *Traction Control System (TCS) on page 9-28* for more information.

Service Vehicle Messages

SERVICE POWER STEERING

This message is displayed if there is a problem with the power steering system and a chime may sound. Take the vehicle to your dealer for service.

SERVICE VEHICLE SOON

This message is displayed if there is a problem with the vehicle. Take the vehicle to your dealer for service.

Tire Messages

SERVICE TIRE MONITOR SYSTEM

This message displays if there is a problem with the Tire Pressure Monitor System (TPMS). See *Tire Pressure Monitor Operation on page 10-44*.

TIRE LEARNING ACTIVE

This message displays when the system is learning new tires. See *Tire Pressure Monitor Operation on page 10-44*.

TIRE PRESSURE LOW ADD AIR TO TIRE

On vehicles with the Tire Pressure Monitor System (TPMS), this message displays when the pressure in one or more of the vehicle's tires is low.

The low tire pressure warning light will also come on. See *Tire Pressure Light on page 5-20*.

If a tire pressure message appears on the DIC, stop as soon as you can. Inflate the tires by adding air until the tire pressure is equal to the values shown on the Tire and Loading Information label. See *Tires on page 10-35*, *Vehicle Load Limits on page 9-10*, and *Tire Pressure on page 10-42*.

You can receive more than one tire pressure message at a time. To read the other messages that may have been sent at the same time, press the SET/CLR button. The DIC also shows the tire pressure values. See *Driver Information Center (DIC) on page 5-22*.

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Transmission Messages

SERVICE TRANSMISSION

This message displays if there is a problem with the transmission. See your dealer.

TRANSMISSION HOT — IDLE ENGINE

This message displays and a chime sounds if the transmission fluid in the vehicle gets hot. Driving with the transmission fluid temperature high can cause damage to the vehicle. Stop the vehicle and let it idle to allow the transmission to cool. This message clears when the fluid temperature reaches a safe level.

Vehicle Reminder Messages

ICE POSSIBLE DRIVE WITH CARE

This message is displayed when ice conditions are possible.

Vehicle Personalization

The audio system controls are used to access the personalization menus for customizing vehicle features.

CONFIG (Configuration): Press to access the Configuration Settings menu.

TUNE/MENU: Press the center of the knob or outer ring for radios with navigation to enter the menus and select menu items. Turn the knob or outer ring to scroll through the menus.

⇦ **BACK:** Press to exit or move backward in a menu.

Entering the Personalization Menus

1. Press CONFIG to access the Configuration Settings menu. The key must be in the ON/RUN position.
2. Turn the TUNE/MENU knob or outer ring to highlight the Vehicle Settings menu.
3. Press the TUNE/MENU knob or outer ring to select the menu.
4. Press ⇦ BACK to confirm the selection and move back to the last menu.

The following list of menu items may be available:

- Languages
- Time and Date
- Radio Settings
- Phone Settings
- Display Settings
- Vehicle Settings

Languages

The following list of languages may be available:

- English
- French
- Spanish

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Select the desired language.

Time and Date

Select the Time and Date menu and the following will be displayed:

- Set Time
- Set Date
- 12 hr / 24 hr Format

Set Time

Select to manually set the time. Turn TUNE/MENU knob or outer ring to change the number, then press the knob or outer ring to confirm and go to the next number.

Set Date

Select to manually set the date. Turn TUNE/MENU knob or outer ring to change the number, then press the knob or outer ring to confirm and go to the next number.

12 hr / 24 hr Format

Select to set the 12/24 hour format.

Select 12 hr or 24 hr.

Radio Settings

Select Radio Settings and the following may be displayed:

- Auto Volume
- Maximum Startup Volume
- Radio Favorites

Auto Volume

The auto volume feature automatically adjusts the radio volume to compensate for road and wind noise as the vehicle speeds up or slows down, so that the volume level is consistent.

Select Off, Low, Medium, or High.

Maximum Startup Volume

Select to manually set the startup volume of the radio.

Turn TUNE/MENU knob or outer ring to increase or decrease the value.

Radio Favorites

Select to manually set the number of favorite pages.

Select 1−6.

Phone Settings

Select Phone Settings and the following may be displayed:

- Bluetooth
- Return to Factory Settings

Bluetooth

The following list of menu items may be available:

- Activation
- Device List
- Pair Device
- Change Bluetooth Code

Activation

When on, the system will allow a Bluetooth device to connect.

Select On or Off.

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Device List

Allows the management of a Bluetooth device.

Select Connect, Separate, or Delete.

Pair Device

Allows the pairing of a new Bluetooth device. See “Bluetooth” in the infotainment manual.

Change Bluetooth Code

Manually change or set the code.

Return to Factory Settings

Select Return to Factory Settings to return Bluetooth to the default settings.

Select Yes or No.

Display Settings

Select Display Settings and the following may be displayed:

- Home Page Menu
- Display Off

Home Page Menu

Select Home Page Menu and the following may be displayed:

- Customize
- Sort
- Restore Home Page Defaults

Customize

Select what icons will be available on the Home Page.

Turn TUNE/MENU knob or outer ring to select an icon, then press the knob or outer ring.

Sort

This allows the first Home Page to be customized. See “Home Page” under “Using the System” in the infotainment manual.

Restore Home Page Defaults

Select Restore Home Page Defaults to return the Home Page to the default settings.

Select Yes or No.

Vehicle Settings

The following list of menu items may be available:

- Climate and Air Quality
- Comfort and Convenience
- Lighting
- Power Door Locks
- Remote Lock/Unlock/Start
- Return to Factory Settings?

Climate and Air Quality

If equipped, select the Climate and Air Quality menu and the following may be displayed:

- Auto Fan Speed
- Air Conditioning Mode
- Remote Start Auto Heat Seats
- Auto Defog
- Auto Rear Defog

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Auto Fan Speed

This allows the selection of the automatic fan speed. This feature sets the climate control fan speed to maintain the interior temperature.

Select High, Medium, or Low.

Air Conditioning Mode

When on, the Air Conditioning will come on when the vehicle is started.

Select On, Off, or Last Setting.

Remote Start Auto Heat Seats

On vehicles with remote start and heated seats, the heated seats can be set to on or off.

Select On or Off.

Auto Defog

When selected and high humidity is detected, the climate control system may adjust to outside air supply and turn on the air conditioner or the heater. The fan speed may slightly increase to help prevent fogging. When high humidity is no longer detected, the system will return to its prior operation.

Select or Deselect.

Auto Rear Defog

When selected, this feature turns on the rear defogger at vehicle start when the interior temperature is cold and fog is likely. The auto rear defog function can be disabled by pressing  . When off, the feature can be turned on by pressing . See “Rear Window Defogger” under *Climate Control Systems on page 8-1*.

Select or Deselect.

Comfort and Convenience

If equipped, select the Comfort and Convenience menu and the following may be displayed:

- Easy Exit Driver Seat
- Auto Memory Recall
- Chime Volume
- Button Volume
- Reverse Tilt Mirror
- Auto Reverse Gear Wiper

Easy Exit Driver Seat

This feature moves the seat rearward allowing the driver more room to exit the vehicle.

Select On or Off.

Auto Memory Recall

If equipped, this feature recalls the driver seat and outside mirrors to previously stored Remote Keyless Entry (RKE) transmitter memory positions when entering the vehicle. See *Memory Seats on page 3-6*.

Select On or Off.

Chime Volume

This allows the selection of the chime volume level.

Select Normal or High.

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Button Volume

This allows the selection of the volume level when a button is pressed.

Select Normal or High.

Reverse Tilt Mirror

This feature tilts the outside mirrors when the vehicle is in R (Reverse) allowing the driver to view the curb for parallel parking.

Select On or Off.

Auto Reverse Gear Wiper

When selected, the rear wiper will intermittent wipe when the vehicle is shifted into R (Reverse). When deselected, the rear wiper will continuously wipe when the vehicle is shifted into R (Reverse).

Select or Deselect.

Lighting

Select the Lighting menu and the following will be displayed:

- Exit Lighting
- Vehicle Locator Lights

Exit Lighting

This allows the selection of how long the exterior lamps stay on when leaving the vehicle when it is dark outside.

Select Off, 30 Seconds, 1 Minute, or 2 Minutes.

Vehicle Locator Lights

This allows the headlamps, parking lamps, taillamps, and most of the interior lamps to turn on briefly when is pressed.

Select or Deselect.

Power Door Locks

Select Power Door Locks and the following will be displayed:

- Open Door Anti Lock Out
- Auto Door Unlock
- Delayed Door Lock

Open Door Anti Lock Out

When selected, this feature will keep the driver door from locking when the door is open. When deselected, the Delayed Door Lock menu will be available and the door will lock as programmed through this menu.

Select or Deselect.

Auto Door Unlock

This allows selection of which of the doors will automatically unlock when the vehicle is shifted into P (Park).

Select All Doors, Driver Door, or OFF.

Delayed Door Lock

When selected, this feature will delay the locking of the doors after the last door is closed.

Select or Deselect.

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Remote Lock/Unlock/Start

Select Remote Lock/Unlock/Start and the following will be displayed (depending on the system):

- Remote Unlock Feedback
- Remote Lock Feedback
- Remote Door Unlock

Remote Unlock Feedback

This allows selection of what type of feedback is given when unlocking the vehicle with the RKE transmitter.

Select Flash Lights or Off.

Remote Lock Feedback

This allows selection of what type of feedback is given when locking the vehicle with the RKE transmitter.

Select Lights and Horn, Lights Only, Horn Only, or Off.

Remote Door Unlock

This allows selection of which doors will unlock when pressing on the RKE transmitter.

When set to Driver Door, the driver door will unlock the first time is pressed and all doors will unlock when is pressed a second time. When set to All Doors, all of the doors will unlock at the first press of .

Select Driver Door or All Doors.

Return to Factory Settings?

Select Return to Factory Settings, to return all vehicle personalization to the default settings.

Select Yes or No.

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Lighting

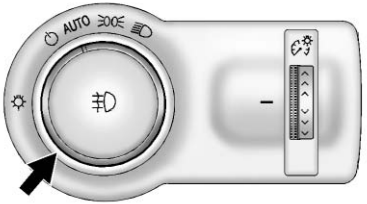
Exterior Lighting
Exterior Lamp Controls 6-1
Headlamp High/Low-Beam Changer 6-2
Flash-to-Pass 6-2
Daytime Running Lamps (DRL) 6-2
Automatic Headlamp System 6-3
Hazard Warning Flashers 6-3
Turn and Lane-Change Signals 6-4
Front Fog Lamps 6-4

Interior Lighting
Instrument Panel Illumination Control 6-5
Courtesy Lamps 6-5
Dome Lamps 6-5
Reading Lamps 6-5

Lighting Features
Entry Lighting 6-6
Exit Lighting 6-6
Battery Power Protection 6-6

Exterior Lighting

Exterior Lamp Controls



The exterior lamp control is to the left of the steering column on the instrument panel.

There are four positions:

⏻ **(Off):** Briefly turn to this position to turn the automatic lamp control off or on again.

AUTO (Automatic): Turns the headlamps on automatically at normal brightness, together with the following:

- Parking Lamps
- Taillamps
- License Plate Lamps
- Instrument Panel Lights
- Sidemarker Lamps

(Parking Lamps): Turns the parking lamps on together with the following:

- Taillamps
- License Plate Lamps
- Instrument Panel Lights
- Sidemarker Lamps

(Headlamps): Turns the headlamps on together with the lamps listed below. A warning chime sounds if the driver door is opened when the ignition switch is off and the headlamps are on.

- Parking Lamps
- Taillamps
- License Plate Lamps
- Instrument Panel Lights
- Sidemarker Lamps

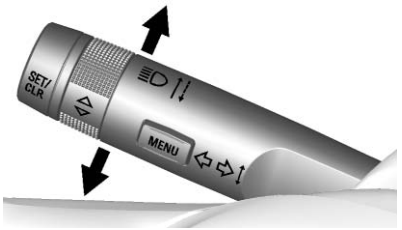
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(Front Fog Lamps): For vehicles with fog lamps, press to turn the lamps on or off.

See *Front Fog Lamps on page 6-4*.

When the lights are on, will be lit. See *Lamps On Reminder on page 5-22*.

Headlamp High/ Low-Beam Changer



(Headlamp High/Low-Beam Changer): Push the turn signal lever away from you and release, to turn the high beams on.

To return to low beams, push the lever again or pull it toward you and release.



This indicator light turns on in the instrument cluster when the high-beam headlamps are on.

Flash-to-Pass

To flash the high beams, pull the turn signal lever all the way toward you. Then release it.

Daytime Running Lamps (DRL)

Daytime Running Lamps can make it easier for others to see the front of your vehicle during the day. Fully functional daytime running lamps are required on all vehicles first sold in Canada.

A light sensor on top of the instrument panel makes the DRL work, so be sure it is not covered.

The DRL system makes the low-beam headlamps come on at a reduced brightness when the following conditions are met:

- The ignition is in the ON/ RUN mode.
- The exterior lamp control is in AUTO.
- The engine is running.

When the DRL are on, only the low-beam headlamps, at a reduced level of brightness, will be on. The taillamps, sidemarker, instrument panel, and other lamps will not be on.

The headlamps automatically change from DRL to the regular headlamps depending on the darkness of the surroundings. The other lamps that come on with the headlamps will also come on.

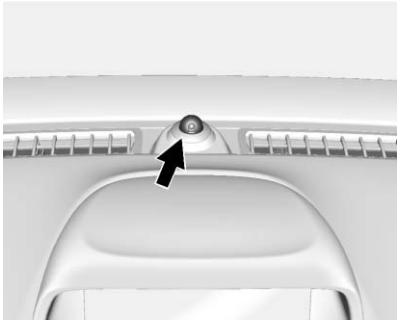
Information Provided by: DEALER E-PROCESS

When it is bright enough outside, the headlamps go off and the DRL come on.

To turn the DRL off or on again, turn the exterior lamp control to the off position and then release. For vehicles first sold in Canada, the DRL cannot be turned off.

Automatic Headlamp System

When it is dark enough outside and the exterior lamp control is in the automatic position, the headlamps come on automatically. See *Exterior Lamp Controls on page 6-1*.



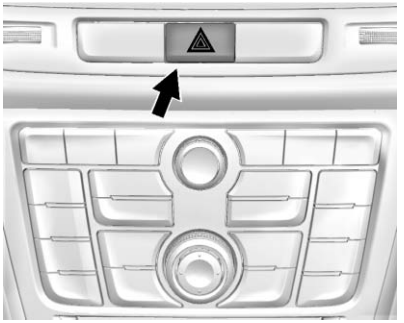
The vehicle has a light sensor on top of the instrument panel. Make sure it is not covered, or the headlamps will be on when they are not needed.

The system may also turn on the headlamps when driving through a parking garage or tunnel.

Lights On with Wipers

If the windshield wipers are activated in daylight with the engine on, and the exterior lamp control is in AUTO, the headlamps, parking lamps, and other exterior lamps come on. The transition time for the lamps coming on varies based on wiper speed. When the wipers are not operating, these lamps turn off. Move the exterior lamp control to ⏻ or ☼ to disable this feature.

Hazard Warning Flashers

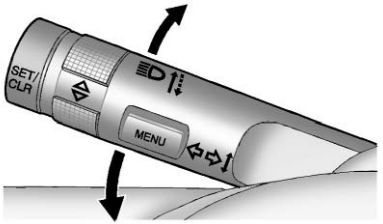


⚠ **(Hazard Warning Flasher):** Press and momentarily hold this button to make the front and rear turn signal lamps flash on and off. This warns others that you are

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having trouble. Press and momentarily hold again to turn the flashers off.

Turn and Lane-Change Signals



Move the lever all the way up or down to signal a turn.

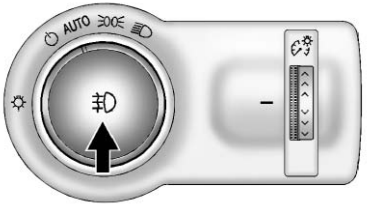
An arrow on the instrument cluster will flash in the direction of the turn or lane change.

Raise or lower the lever until the arrow starts to flash to signal a lane change. The turn signal flashes three times.

The lever returns to its starting position when it is released.

If after signaling a turn or lane change the arrow flashes rapidly or does not come on, a signal bulb may be burned out. Replace any burned out bulbs. If a bulb is not burned out, check the fuse. See *Fuses and Circuit Breakers on page 10-27*.

Front Fog Lamps



If the vehicle is equipped with front fog lamps, the button is on the outboard side of the instrument panel.

The ignition must be on to turn on the fog lamps.

(Front Fog Lamps): Press to turn the fog lamps on or off. An indicator light on the instrument cluster comes on when the fog lamps are on.

The fog lamps come on together with the parking lamps.

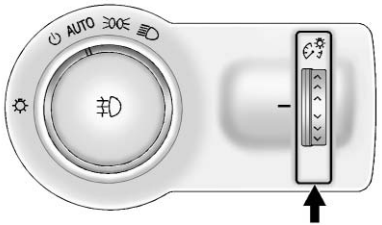
If the high-beam headlamps are turned on, the fog lamps will turn off. If the high-beam headlamps are turned off, the fog lamps will turn back on again.

Some localities have laws that require the headlamps to be on along with the fog lamps.

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Interior Lighting

Instrument Panel Illumination Control



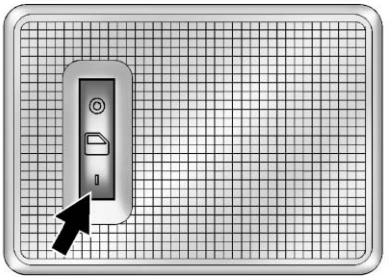
This feature controls the brightness of the instrument panel controls and infotainment display screen. The thumbwheel is to the left of the steering column on the instrument panel.

(Instrument Panel Brightness): Move the thumbwheel up or down and hold, to brighten or dim the instrument panel controls and infotainment display screen.

Courtesy Lamps

The courtesy lamps come on automatically when any door is opened and the dome lamp is in the door position.

Dome Lamps



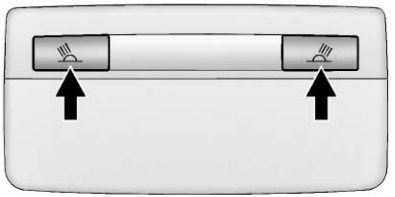
The dome lamp controls are in the headliner above the rear seats.

(Dome Lamp Override): Press to turn the lamps off, even when a door is open.

(Door): When the button is returned to the middle position, the lamps turn on automatically when a door is opened.

(On): Press to turn on the dome lamps.

Reading Lamps



For vehicles with front reading lamps, they are in the overhead console.

or (Reading Lamps): Press to turn each lamp on or off.

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Lighting Features

Entry Lighting

The headlamps, parking lamps, taillamps, back-up lamps, and most of the interior lamps turn on briefly when is pressed on the Remote Keyless Entry (RKE) transmitter. After about 30 seconds the exterior lamps turn off, and then the dome and remaining interior lights will dim to off. Entry lighting can be disabled manually by changing the ignition out of the OFF position, or by pressing the RKE transmitter button.

This feature can be changed. See “Vehicle Locator Lights” under *Vehicle Personalization on page 5-31*.

Exit Lighting

The headlamps, taillamps, parking lamps, back-up lamps, and license plate lamps come on at night, or in areas with limited lighting, when the key is removed from the ignition. The dome lamps also come on when the key is removed from the ignition. The exterior lamps and dome lamps remain on after the door is closed for a set amount of time, then automatically turn off.

The exterior lamps turn off immediately by turning the exterior lamps control off.

The exit lighting feature can be changed. See *Vehicle Personalization on page 5-31*.

Battery Power Protection

The battery saver feature is designed to protect the vehicle's battery.

If some interior lamps are left on and the ignition is turned off, the battery rundown protection system automatically turns the lamp off after some time.

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Infotainment System

Introduction
Infotainment 7-1
Theft-Deterrent Feature 7-2
Overview 7-2
Operation 7-4

Radio
AM-FM Radio 7-7
Radio Reception 7-10
Multi-Band Antenna 7-11

Audio Players
CD Player 7-11
Auxiliary Devices 7-13

Phone
Bluetooth 7-16

Trademarks and License Agreements
Trademarks and License Agreements 7-26

Introduction

Infotainment

Read the following pages to become familiar with the audio system's features.

⚠ WARNING

Taking your eyes off the road for extended periods could cause a crash resulting in injury or death to you or others. Do not give extended attention to infotainment tasks while driving.

This system provides access to many audio and non-audio listings.

To minimize taking your eyes off the road while driving, do the following while the vehicle is parked:

- Become familiar with the operation and controls of the audio system.
- Set up the tone, speaker adjustments, and preset radio stations.

For more information, see *Defensive Driving on page 9-4*.

Notice: **Contact your dealer before adding any equipment.**

Adding audio or communication equipment could interfere with the operation of the engine, radio, or other systems, and could damage them. Follow federal rules covering mobile radio and telephone equipment.

The vehicle has Retained Accessory Power (RAP). With RAP, the audio system can be played even after the ignition is turned off. See *Retained Accessory Power (RAP) on page 9-19*.

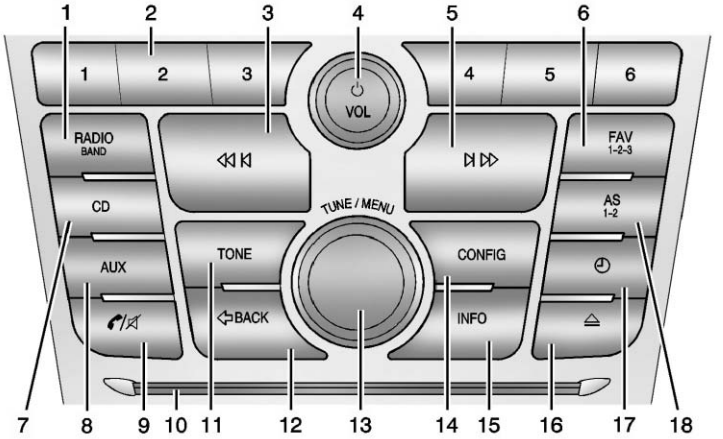
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The vehicle may have a base radio that is included in this manual. See the separate infotainment manual for information on the connective radio and the navigation system, audio players, phone, and voice recognition. There is also information on settings and downloadable applications (if equipped).

Theft-Deterrent Feature

The theft-deterrent feature works by learning a portion of the Vehicle Identification Number (VIN) to the infotainment system. The infotainment system does not operate if it is stolen or moved to a different vehicle.

Overview



1. RADIO/BAND
   - Changes the band while listening to the radio.
   - Selects the radio when listening to a different audio source.

2. Buttons 1−6
   - Radio: Saves and selects favorite stations.

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3. ⏮ (Previous/Reverse)
   - Radio: Seeks the previous station.
   - CD: Selects the previous track or rewinds within a track.
4. ⏻ /VOL (Power/Volume)
   - Turns the system on or off and adjusts the volume.
5. ⏭ (Next/Forward)
   - Radio: Seeks the next station.
   - CD: Selects the next track or fast forwards within a track.
6. FAV 1-2-3 (Favorites Page)
   - Radio: Opens the favorites list.
7. CD
   - Selects the CD player.
8. AUX (Auxiliary)
   - Selects an external audio source.
9. 📞 / 🔇 (Phone/Mute)
   - Opens the phone main menu.
   - Mutes the audio system.
10. CD Slot
    - Insert a CD.
11. TONE
    - Opens the tone menu.
12. ⇦ BACK
    - Menu: Moves one level back.
    - Character Input: Deletes the last character.
13. TUNE/MENU
    - Turn to open menus, highlight menu items, or set numeric values while in a menu.
    - Press to select menu items.
    - Radio: Manually selects radio stations.
    - CD: Selects tracks.
    - Bluetooth: Press to answer a call, or turn to answer or reject a call, then press to confirm.
14. CONFIG (Configuration)
    - Opens the settings menu.
15. INFO (Information)
    - Radio: Shows available information about the current station.
    - CD: Shows available information about the current track.
16. ⏏ (Eject)
    - Removes a disc from the CD slot.
17. 🕘 (Clock)
    - Opens the clock menu.

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18. AS 1-2 (Autostore)
    - Radio: Press to select the auto store station page, or press and hold to automatically store stations to the pages.

Operation

Controls

The infotainment system is operated by using the pushbuttons, multifunction knobs, menus shown on the display, and steering wheel controls, if equipped.

Turning the System On or Off

⏻ **/VOL (Power/Volume):** Press to turn the system on and off.

Automatic Switch-Off

If the infotainment system has been turned on after the ignition is turned off, the system will turn off automatically after 10 minutes.

Volume Control

⏻ **/VOL (Power/Volume):** Turn to adjust the volume.

(Phone/Mute): Press and hold to mute the infotainment system. Press and hold again to cancel mute.

Menu System

Controls

The TUNE/MENU knob and ⇦ BACK are used to navigate the menu system.

TUNE/MENU:

Press to:

- Enter the menu system.
- Select or activate the highlighted menu option.
- Confirm a set value.
- Turn a system setting on or off.

Turn to:

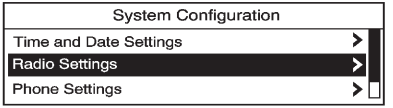
- Highlight a menu option.
- Select a value.

⇦ **BACK:**

Press to:

- Exit a menu.
- Return from a submenu screen to the previous menu screen.
- Delete the last character in a sequence.

Selecting a Menu Option



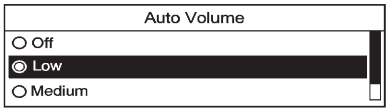
1. Turn the TUNE/MENU knob to move the highlighted bar.
2. Press the TUNE/MENU knob to select the highlighted option.

Submenus

An arrow on the right-hand edge of the menu indicates that it has a submenu with other options.

Information Provided by: DEALER E-PROCESS

Activating a Setting



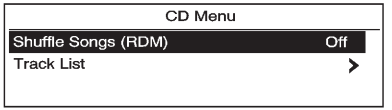
1. Turn the TUNE/MENU knob to highlight the setting.
2. Press the TUNE/MENU knob to activate the setting.

Setting a Value



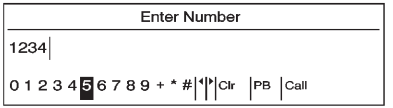
1. Turn the TUNE/MENU knob to change the current value of the setting.
2. Press the TUNE/MENU knob to confirm the setting.

Turning a Function On or Off



1. Turn the TUNE/MENU knob to highlight the function.
2. Press the TUNE/MENU knob to turn the function on or off.

Entering a Character Sequence



1. Turn the TUNE/MENU knob to highlight the character.
2. Press the TUNE/MENU knob to select the character.

Press ⇦ BACK to delete the last character in the sequence or press and hold to delete the entire character sequence.

Audio Settings

The audio settings can be set for each radio band and each audio player source.

To quickly reset an audio setting value to 0:

1. Press the TONE button.
2. Select the audio setting.
3. Press and hold the TUNE/MENU knob until the value changes to 0.

Press ⇦ BACK to go back to the Tone Settings menu.

Information Provided by:
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Adjusting the Treble, Midrange, and Bass

1. Press the TONE button.
2. Select Treble, Midrange, or Bass.
3. Select the value.

Press ⇦ BACK to go back to the Tone Settings menu.

Adjusting the Fader and Balance

1. Press the TONE button.
2. Select Fader or Balance.
3. Select the value.

Press ⇦ BACK to go back to the Tone Settings menu.

Adjusting the EQ (Equalizer)

For vehicles that have an equalizer:

1. Press the TONE button.
2. Select EQ presets.
3. Select the setting.

Press ⇦ BACK to go back to the Tone Settings menu.

System Settings

Configuring the Number of Favorite Pages

To configure the number of available favorite pages:

1. Press the CONFIG button.
2. Select Radio Settings.
3. Select Radio Favorites.
4. Select the number of available favorite pages.
5. Press ⇦ BACK to go back to the System Configuration menu.

Auto Volume

The auto volume feature automatically adjusts the radio volume to compensate for road and wind noise as the vehicle speeds up or slows down, so that the volume level is consistent.

The level of volume compensation can be selected, or the auto volume feature can be turned off.

1. Press the CONFIG button.
2. Select Radio Settings.
3. Select Auto Volume.
4. Select the setting.
5. Press ⇦ BACK to go back to the System Configuration menu.

Maximum Startup Volume

The maximum volume played when the radio is first turned on can be set.

1. Press the CONFIG button.
2. Select Radio Settings.
3. Select Maximum Startup Volume.
4. Select the setting.
5. Press ⇦ BACK to go back to the System Configuration menu.

Information Provided by: DEALER E-PROCESS

Radio

AM-FM Radio

Control Buttons

The buttons used to control the radio are:

⏻ **/VOL (Power/Volume):**

- Press to turn the radio on or off.
- Turn the knob to increase or decrease the volume. The volume is adjusted for the current audio source or voice prompts.

RADIO/BAND: Press to choose between AM or FM.

TUNE/MENU: Turn to select radio stations. Press to select a menu.

INFO: Press to show available information about the current station or track.

⏮⏭ **or** ⏭⏭ **:** Press to seek the previous or next station or track.

FAV 1-2-3: Press to open the favorites list and select the favorites page.

Buttons 1−6: Press to save and select favorite stations.

AS 1-2 (Autostore): Press to select the auto store station page, or press and hold to automatically store stations to the pages.

Radio Menus

Radio menus are available for AM and FM.

Turn the TUNE/MENU knob to open the main radio menu for that band.

Selecting a Band

Press the RADIO/BAND button to choose AM or FM. The last station that was playing starts playing again.

Selecting a Station

Seek Tuning

If the radio station is not known:

Briefly press ⏮⏮ or ⏭⏭ to automatically search for the next available station. If a station is not found, the radio switches to a more sensitive search level. If a station still is not found, the frequency that was last active begins to play.

If the radio station is known:

Press and hold ⏮⏮ or ⏭⏭ until the station on the display is reached, then release the button.

Manual Tuning

Turn the TUNE/MENU knob to select the frequency on the display.

Favorites List

1. Turn the TUNE/MENU knob.
2. Select Favorites List.
3. Select the station.

Information Provided by: DEALER E-PROCESS

Station Lists

1. Turn the TUNE/MENU knob.
2. Select AM or FM Station List. All receivable stations in the current reception area are displayed. If a station list has not been created, an automatic station search is done.
3. Select the station.

Category Lists

Most stations that broadcast an RDS program type code specify the type of programming transmitted. Some stations change the program type code depending on the content. The system stores the RDS stations sorted by program type in the FM category list.

To search for a programming type determined by station:

1. Turn the TUNE/MENU knob.
2. Select FM category list. A list of all programming types available displays.
3. Select the programming type. A list of stations that transmit programming of the selected type displays.
4. Select the station.

The category lists are updated when the station lists are updated.

Updating Station & Category Lists

If stations stored in the station list can no longer be received:

1. Turn the TUNE/MENU knob.
2. Select Update AM or FM Station List, if the stations stored in the station list are no longer received. A station search will be completed and the first station in the updated list will play.

To cancel the station search, press the TUNE/MENU knob.

Radio Settings

To access the Radio Settings menu:

1. Press the CONFIG button.
2. Turn the TUNE/MENU knob until Radio Settings displays. Press the TUNE/MENU knob to display other options within that feature.

Audio system settings or features can be customized for:

- Auto Volume
- Startup Volume
- Number of Favorite Pages
- RDS

Auto Volume: Turn the TUNE/MENU knob to select volume Off, Low, Medium, or High.

Startup Volume: Turn the TUNE/MENU knob to increase or decrease the infotainment startup volume.

Number of Favorite Pages: Turn the TUNE/MENU knob to highlight the number of favorites. Press the TUNE/MENU knob to select.

RDS: Press the TUNE/MENU knob to turn RDS on or off.

Information Provided by: DEALER E-PROCESS

Finding a Station

Select a band such as AM or FM.

Turn the TUNE/MENU knob to find a radio station. To select a preset station, press the corresponding preset button.

Seeking a Station

Press ◁◁ or ▷▷ to search for a station.

Storing a Station as a Favorite

Up to 36 preset stations can be stored. Each page can store six preset stations. The presets within a page can be from different radio bands.

To scroll through the pages, press the FAV 1-2-3 (favorites) button. The current page number displays above the preset buttons. The stored stations for each list display at the bottom of the screen. The number of preset FAV lists can be changed.

To store a radio station to a favorites page:

1. Press the RADIO/BAND button until the desired band is selected.
2. Turn the TUNE/MENU knob to the station.
3. Press the FAV 1-2-3 button to scroll the list.
4. Press and hold one of the preset buttons for more than two seconds. The station frequency appears on the preset button at the bottom of the display.
5. Repeat the steps for each preset in each page.

To recall a preset station from a favorites page:

1. Press the FAV 1-2-3 button to scroll to the page.
2. Press the preset button. The stored preset station is recalled.

Autostore Stations

AS 1-2 (Autostore): Autostore searches and stores six FM and six AM stations with the strongest signal. To use autostore:

1. Press RADIO/BAND to select FM or AM.
2. Press AS 1-2 for at least two seconds. An update window will display on the screen, press Cancel at any time to cancel the updates.
3. The radio will automatically store the six strongest stations found as autostore presets.

Press the AS 1-2 button to alternate between the autostore page one and two. Select the preset of the desired station.

AS 1 or 2 will display on the radio when listing to autostore preset stations.

Autostore does not delete previously stored favorite stations.

Information Provided by: DEALER E-PROCESS

Radio Data System (RDS)

The audio system has a Radio Data System (RDS). RDS features are available for use only on FM stations that broadcast RDS information. With RDS, the radio can:

- Seek to stations broadcasting the selected type of programming.
- Receive announcements concerning local and national emergencies.
- Display messages from radio stations.

This system relies on receiving specific information from these stations and only works when the information is available. In rare cases, a radio station could broadcast incorrect information that causes the radio features to work improperly. If this happens, contact the radio station.

The RDS system is always on. When information is broadcast from the current FM station, the station name or call letters display on the audio screen. RDS can provide a program type (PTY) for current programming and the name of the program being broadcast.

Radio Reception

Unplug electronic devices from the accessory power outlets if there is interference or static in the radio.

FM

FM signals only reach about 16 to 65 km (10 to 40 mi). Although the radio has a built-in electronic circuit that automatically works to reduce interference, some static can occur, especially around tall buildings or hills, causing the sound to fade in and out.

AM

The range for most AM stations is greater than for FM, especially at night. The longer range can cause station frequencies to interfere with each other. Static can also occur when things like storms and power lines interfere with radio reception. When this happens, try reducing the treble on the radio.

SiriusXM® Satellite Radio Service

If equipped, SiriusXM Satellite Radio Service provides digital radio reception. Tall buildings or hills can interfere with satellite radio signals, causing the sound to fade in and out. In addition, traveling or standing under heavy foliage, bridges, garages, or tunnels may cause loss of the SiriusXM signal for a period of time.

Cell Phone Usage

Cell phone usage, such as making or receiving phone calls, charging, or just having the phone on may cause static interference in the radio. Unplug the phone or turn it off if this happens.

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Multi-Band Antenna

The multi-band antenna is on the roof of the vehicle. The antenna is used for the AM-FM radio, OnStar, the SiriusXM Satellite Radio Service System, and GPS (Global Positioning System), if the vehicle has these features. Keep the antenna clear of obstructions for clear reception.

Audio Players

CD Player

For vehicles equipped with a navigation or connected radio, see “CD Player” in the infotainment manual.

The CD player can be used for CDs and MP3s.

With the ignition on, insert a CD into the slot, label side up. The player pulls it in and begins playing.

The vehicle must be in P (Park) for video to display.

The system is capable of playing:

- Most audio CDs
- CD-R
- CD-RW
- MP3 or unprotected WMA formats

When playing any compatible recordable disc, the sound quality can be reduced due to disc quality, the method of recording, the quality of the music or video that has been recorded, or the way the disc has been handled.

To avoid damage to the CD player:

- Do not use scratched or damaged discs.
- Do not apply labels to discs. The labels could get caught in the player.
- Insert only one disc at a time.
- Keep the loading slot free of foreign materials, liquids, and debris.

If a description label is needed, try labeling the top of the disc using a marking pen.

Control Buttons

The buttons used to control the CD player are:

CD: Press to select the CD player.

⏮ or ⏭: Press to select tracks or to rewind or fast forward within a track.

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INFO (Information): Press to display additional information about the current track that may be available.

TUNE/MENU: Turn this knob to display the track list. Press to select the track from the list. The system plays the selected track and returns to the CD screen.

Inserting a CD

With the printed side facing up, insert a disc into the CD slot until it is drawn in.

Removing a CD

Press ⏏.

The disc is pushed out of the CD slot.

If the disc is not removed after it is ejected, it is pulled back in after a few seconds.

Playing a CD or MP3 CD

Press the CD button if there is a disc in the player; it begins playing. Information about the disc and current track is shown on the display depending on the data stored.

Selecting a CD Track

Using the control buttons:

- Press ⏮ or ⏭ to select the previous or next track.
- Turn the TUNE/MENU knob.

Using the CD Menu:

1. Turn the TUNE/MENU knob.
2. Select Tracks list.
3. Select the track.

Playing Tracks in Random Order

Turn the TUNE/MENU knob and then set Shuffle Songs to On.

Fast Forward and Rewind

Press and hold ⏮ or ⏭ to rewind or fast forward within the current track.

Selecting an MP3 Track

Using the control buttons:

- Press ⏮ or ⏭ to select the previous or next track.
- Turn the TUNE/MENU knob.

Using the CD Menu:

1. Turn the TUNE/MENU knob.
2. Select Playlists/Folders.
3. Select the playlist or folder.
4. Select the track.

Searching for MP3 Tracks

The search feature may take some time to display the information after reading the disc due to the amount of information stored on the disc. FM automatically plays while the disc is being read.

Tracks can be searched by:

- Playlists
- Artists
- Albums
- Song Titles

Information Provided by: DEALER E-PROCESS

- Genres
- Folder View

To search for tracks:

1. Turn the TUNE/MENU knob.
2. Select Search.
3. Select: Playlists, Artists, Albums, Song Titles, Genres, or Folder View.
4. Select the track.

Error Messages

If Disc Read Error displays and/or the disc comes out, it could be for one of the following reasons:

- The disc has an invalid or unknown format.
- The disc is not from a correct region.
- The disc is very hot. Try the disc again when the temperature returns to normal.
- The road is very rough. Try the disc again when the road is smoother.
- The disc is dirty, scratched, wet, or upside down.
- The air is very humid. Try the disc again later.
- There was a problem while burning the disc.
- The label is caught in the CD player.

If the CD is not playing correctly, for any other reason, try a known good CD.

If any error continues, contact your dealer.

Auxiliary Devices

For vehicles equipped with a navigation or connected radio, see “Auxiliary Devices” in the infotainment manual.

The optional AUX input allows portable devices to connect to the vehicle using the 3.5 mm (1/8 in) auxiliary jack or USB port.

Portable devices are controlled by using the menu system described in *Operation on page 7-4*.

Some vehicle may have an AUX input and USB port are in the center console.

3.5 mm Jack

Connect a 3.5 mm (1/8 in) cable to the auxiliary input jack to use a portable audio player.

Playback of an audio device that is connected to the 3.5 mm jack can only be controlled using the controls on the device.

Adjusting the Volume

Turn the ⏻ /VOL knob to adjust the volume of the infotainment system after the volume level has been set on the portable audio device.

USB Port

Not all USB drives are compatible with the USB port.

Information Provided by: DEALER E-PROCESS

For vehicles with a USB port, the following devices may be connected and controlled by the infotainment system:

- iPods
- PlaysForSure Devices (PFDs)
- USB Drives
- Zunes®

Not all iPods, PFDs, USB drives, and Zunes are compatible with the infotainment system. Devices are also charged while plugged into the USB port.

Connecting and Controlling an iPod™

Not all iPods can be controlled by the infotainment system.

Connecting an iPod

Connect the iPod to the USB port.

Searching for a Track

Tracks that are found can be searched for by:

- Playlists
- Artists
- Albums
- Song Titles
- Podcasts
- Genres
- Audio Books
- Composers

To search for tracks:

1. Turn the TUNE/MENU knob.
2. Select Search.
3. Select: Playlists, Artists, Albums, Song Titles, Podcasts, Genres, Audio Books, or Composers.
4. Select the track.

Shuffle

Turn the TUNE/MENU knob and set Shuffle Songs to On or Off, then press the ⇦ BACK button to return to the main screen.

On: Plays tracks in the current folder in random order.

Off: Plays tracks in the current folder in sequential order.

Repeat

Turn the TUNE/MENU knob and set Repeat to On or Off, then press the ⇦ BACK button to return to the main screen.

On: Repeats the current track.

Off: Starts playback from the beginning of the current track after the last track finishes.

Information Provided by: DEALER E-PROCESS

Connecting and Controlling a PlaysForSure Device (PFD) or Zune

Connecting a PFD or Zune

Connect the PFD or Zune to the USB port.

Searching for a Track

Tracks can be searched for by:

- Playlists
- Artists
- Albums
- Song Titles
- Podcasts
- Genres

To search for tracks:

1. Turn the TUNE/MENU knob.
2. Select Search.
3. Select: Playlists, Artists, Albums, Song Titles, Podcasts, or Genres.
4. Select the track.

Shuffle Functionality

Turn the TUNE/MENU knob and set Shuffle Songs to On or Off.

On: Plays current tracks in random order.

Off: Plays current tracks in sequential order.

Repeat Functionality

Turn the TUNE/MENU knob and set Repeat to On or Off.

Repeat On: Repeats the current track.

Repeat Off: Starts playback from the beginning of the current track after the last track finishes.

Connecting and Controlling a USB Drive

The infotainment system can only play back .mp3 and .wma files from a USB drive.

Only the first 10,000 songs are recognized on the device.

When a device is not supported, the message “No supported data found. You can safely disconnect the device” appears.

Connecting a USB Drive

Connect the USB drive to the USB port.

Searching for a Track

It is normal for the search feature to take some time to display the information after reading the device due to the amount of information stored.

Files that do not have any meta data stored in the ID3 tag display as Unknown.

Tracks can be searched for by:

- Playlists—This only displays if a playlist is found on the device.
- Artists
- Albums
- Song Titles
- Genres

Information Provided by: DEALER E-PROCESS

- Folder View

To search for tracks:

1. Turn the TUNE/MENU knob.
2. Select Search.
3. Select: Playlists, Artists, Albums, Song Titles, Genres, or Folder View.
4. Select the track.

Shuffle Functionality

Turn the TUNE/MENU knob and set Shuffle Songs to On or Off.

On: Plays current tracks in random order.

Off: Plays current tracks in sequential order.

Repeat Functionality

Turn the TUNE/MENU knob and set Repeat to On or Off.

Repeat On: Repeats the current track.

Repeat Off: Starts playback from the beginning of the current track after the last track finishes.

Phone

Bluetooth

General Information

Vehicles with a Universal Hands-free Phone (UHP) system can use a Bluetooth® capable mobile phone with a Hands-Free Profile to make and receive phone calls. The infotainment system and voice control are used to control the system. The system can be used while the ignition is in ON/RUN or ACC/ACCESSORY. The range of the UHP system can be up to 10 m (33 ft). Not all phones support all functions and not all phones work with the UHP system.

Other Information

The Bluetooth word mark and logos are owned by the Bluetooth® SIG, Inc. and any use of such marks by General Motors is under license. Other trademarks and trade names are those of their respective owners.

UHP Controls

Use the buttons located on the infotainment system and the steering wheel to operate the UHP system.

Steering Wheel Controls

Steering wheel controls can be used to:

- Answer incoming calls
- Confirm system information
- Start voice recognition (if equipped)
- End a call
- Reject a call
- Cancel an operation
- Make outgoing calls using the call list

(Phone) or / (Phone/Push to Talk, If Equipped): Press to answer incoming calls or confirm system information. If equipped, press to start voice control. Press and hold for two to three seconds to access the call list.

Information Provided by: DEALER E-PROCESS

/ (Mute/End Call): Press to end a call, reject a call, or to cancel an operation.

To make outgoing calls using the call list.

1. Press or / .
2. Highlight the phone number by toggling the SRC switch up or down.
3. Dial the highlighted number by pressing or / .

Infotainment System Controls

: Press to enter the Phone main menu.

Voice Control (If Equipped)

The voice control system uses commands to control the system and dial phone numbers.

Noise: The system may not recognize voice commands if there is too much background noise.

When to Speak: A tone sounds to indicate that the system is ready for a voice command. Wait for the tone and then speak.

How to Speak: Speak clearly in a calm and natural voice.

Audio System

When using the UHP system, sound comes through the vehicle's front audio system speakers and overrides the audio system. Use the / VOL knob during a call to change the volume level. The adjusted volume level remains in memory for later calls. The system maintains a minimum volume level.

Turning Bluetooth On or Off

1. Press the CONFIG button.
2. Select Phone Menu.
3. Select Bluetooth Settings.
4. Select Bluetooth.
5. Select Activation.
6. Select Yes or No.

Changing Bluetooth Code

The default Bluetooth code should work with most mobile phones.
If you are having difficulty pairing your mobile phone, you can change the code at any time.

1. Press the CONFIG button.
2. Select Phone Menu.
3. Select Bluetooth Settings.
4. Select Bluetooth.
5. Select Change Bluetooth Code.
6. Enter a new four-digit code, then select OK.

Ring Volume

There are three different volumes available for the UHP system.

To change the ring volume:

1. Press the CONFIG button.
2. Select Phone Menu.
3. Select Bluetooth Settings.
4. Select Sound & Signal.
5. Select Ring Volume.

Information Provided by: DEALER E-PROCESS

6. Select Ring Volume 1, 2, or 3.

Ring Tone

There are different ring tones available for the UHP system.

To change the ring tone:

1. Press the CONFIG button.
2. Select Phone Menu.
3. Select Bluetooth Settings.
4. Select Sound & Signal.
5. Select Ring Tones.
6. Select the tone.

Pairing

A Bluetooth enabled mobile phone must be paired to the UHP system first and then connected to the vehicle before it can be used. See the mobile phone manufacturer's user guide for Bluetooth functions before pairing the mobile phone.

- Up to five mobile phones can be paired to the UHP system.
- The pairing process is disabled when the vehicle is moving.
- The UHP system connects with the first available paired mobile phone in the order the phone was paired.
- Only one paired mobile phone can be connected to the UHP system at a time.
- Pairing should only need to be completed once, unless changes to the pairing information have been made or the mobile phone is deleted.

Using UHP with Infotainment Controls

Pairing a Phone

If your mobile phone has simple pairing or auto discovery features, they need to be turned off before the mobile phone can be paired to the UHP system. See the mobile phone manufacturer's user guide for information on these features.

1. Press the CONFIG button.
2. Select Phone Menu.
3. Select Bluetooth Settings.
4. Select Bluetooth.
5. Select Pair Device, then press the MENU button. A four-digit number appears on the display and the UHP system goes into discovery mode.
6. Start the pairing process on the mobile phone that will be paired to the vehicle. Reference the mobile phone manufacturer's user guide for information on this process.

   Locate the device named UHP followed by a four-digit number in the list on the mobile phone and follow the instructions on the mobile phone. Enter the four-digit code provided by the system if necessary, then follow the instructions on the infotainment display screen.
7. Repeat Steps 1–5 to pair additional mobile phones.

Information Provided by: DEALER E-PROCESS

Viewing All Paired and Connected Phones

To view all available mobile phones that are paired to the UHP system:

1. Press the CONFIG button.
2. Select Phone Menu.
3. Select Bluetooth Settings.
4. Select Bluetooth.
5. Select Device List.
6. Repeat Steps 1–4 to pair additional mobile phones.

Deleting a Paired Phone

To remove a paired mobile phone from the UHP system:

1. Press the CONFIG button.
2. Select Phone Menu.
3. Select Bluetooth Settings.
4. Select Bluetooth.
5. Select Device List.
6. Select the mobile phone to delete and follow the on screen prompts.

Connecting to a Different Phone

To connect to a different paired mobile phone, the new mobile phone must be in the vehicle and available to be connected to the UHP system before the process is started.

To connect to a different phone:

1. Press the CONFIG button.
2. Select Phone Menu.
3. Select Bluetooth Settings.
4. Select Bluetooth.
5. Select Device List.
6. Select the new mobile phone to link to and follow the on screen prompts.

If delete is selected, the highlighted mobile phone will be deleted.

Making a Call Using Phone Book and Call List

For mobile phones that support the phone book and call list features, the UHP system can use the contacts and call list stored on your mobile phone to make calls. See your mobile phone manufacturer's user guide or contact your wireless provider to find out if this feature is supported by your mobile phone.

The time it takes to download the phone book and call list from your mobile phone to the UHP system can vary depending on the size of the phone book and call list stored on your mobile phone.

When a mobile phone supports the phone book and call list features, the Phone Book, and Call List menus are automatically available.

The Phone Book menu allows you to access the phone book stored in the mobile phone to make a call.

The Call List menu allows you to access the phone numbers from the Incoming Calls, Outgoing Calls, and Missed Calls menus on your mobile phone to make a call.

To make a call using the Phone Book menu:

1. Press the CONFIG button.

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2. Select Phone Menu.
3. Select Phone Book.
4. Select Search.
5. Search through the list by selecting the letter group the phone book entry begins with. To continue scrolling through the entire list, turn the TUNE/MENU knob.
6. Select the name or number you want to call.

To make a call using the Call List menu:

1. Press and hold.
2. Turn the TUNE/MENU knob to select the Incoming Calls, Outgoing Calls, or Missed Call list.
3. Select the name or number you want to call.

Making a Call Using a Telephone Number

To make a call:

1. Press the TUNE/MENU knob.
2. Turn the TUNE/MENU knob to select Enter Number.
3. Select the numbers to be dialed.
4. Select Call to start dialing the number.

Accepting or Declining a Call

When an incoming call is received, the infotainment system mutes and a ring tone is heard in the vehicle.

To accept the incoming call, turn the TUNE/MENU knob to “Answer” and press TUNE/MENU, or press / on the steering wheel controls.

To decline the incoming call, turn the TUNE/MENU knob to “Decline” and press TUNE/MENU, or press / on the steering wheel controls.

Call Waiting

Call waiting must be supported on the mobile phone and enabled by the wireless service carrier to work.

To accept the incoming call, turn the TUNE/MENU knob to “Answer” and press TUNE/MENU, or press or / on the steering wheel controls.

To decline the incoming call, turn the TUNE/MENU knob to “Decline” and press TUNE/MENU, or press / on the steering wheel controls.

1. Press .
2. Select Switch Call from the menu.

Conference Calling

Conference calling and three-way calling must be supported on the mobile phone and enabled by the wireless service carrier to work.

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To start a conference call while in a call:

1. Press TUNE/MENU and select Enter Number.
2. Enter the character sequence then select call.
3. After the call has been placed, press TUNE/MENU and choose Merge Calls.
4. To add more callers to the conference call, repeat Steps 1–3. The number of callers that can be added is limited by your wireless service carrier.

To disconnect from one caller while in a conference call, select Detach Number from the menu and select the number to hang up on.

Ending a Call

Press TUNE/MENU and select Hang Up, or press / on the steering wheel controls.

To Mute a Call

Press TUNE/MENU and select Mute Call.

To Cancel Mute

Press TUNE/MENU and select Mute Call.

Dual Tone Multi-Frequency (DTMF) Tones

The UHP system can send numbers during a call. This is used when calling a menu driven phone system.

To access this system:

1. Press TUNE/MENU and select Enter Number.
2. Enter the character sequence.

Operating UHP Using Voice Control (If Equipped)

The voice control of the UHP system enables you to operate several functions of the mobile phone using your voice. The UHP system uses voice commands to control the system and dial phone numbers. After input of the command, the infotainment system guides you through the dialogue with appropriate questions and feedback to achieve the desired action. The commands and numbers can be spoken without a pause between the individual words.

In addition you can save telephone numbers under a name tag that is selectable by you. The telephone connection can be set up with this name.

In the event of incorrect operation or incorrect codes, the voice control gives you voice feedback and requests you to re-enter the desired command. Apart from this, the voice control acknowledges important commands and will ask if necessary.

In order that calls made inside the vehicle do not lead to unintentional triggering of the mobile phone, the voice control does not start until it has been activated.

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Activating the Voice Control

For vehicles without a navigation system, press or / on the steering wheel to activate the voice control of the UHP system.

For vehicles with a navigation system, press or / on the steering wheel to activate the voice control of the UHP system. The system responds with a tone. After the tone, say ”Phone.“

For the duration of the dialogue, any audio source that is active is muted, and any traffic news fade-in is canceled.

Adjusting the Volume for Voice Output

Turn the volume knob of the infotainment system or press the + / - buttons on the steering wheel.

Canceling Dialogue

Any of the following will deactivate the voice control and cancel the dialogue:

- Press / on the steering wheel controls.
- Enter the command “Cancel.”
- Do not enter a command for some time.
- The command is unrecognized after three tries.

Main Menu Commands

The UHP system has a set of main menu commands that are available when voice control is first started. After the voice control is activated, a short tone indicates that the voice control system is waiting for a command.

Available commands:

- “Dial”
- “Call”
- “Re-dial”
- “Save”
- “Delete”
- “Directory”
- “Pair”
- “Select device”
- “Voice feedback”
- “Help”
- “Cancel”

Frequently Used Commands

Here is a list of frequently used commands:

- “Help”: the dialogue is terminated and all commands available in the current context are enumerated.
- “Cancel”: the voice control is deactivated.
- “Yes”: a suitable action is triggered depending on the context.
- “No”: a suitable action is triggered depending on the context.

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Voice Feedback

Each voice input is answered or commented on by the infotainment system by way of a voice output that is adapted to the situation.

To switch the voice output on or off, enter “Voice feedback” or press or / .

Pairing, Saving, or Deleting Phone from Device List

With the command “Pair” a mobile phone can be saved to or deleted from the device list of the UHP system. A device number will be assigned by the UHP system to the mobile phone when it is paired.

Available commands:

- “Add”
- “Delete”
- “Help”
- “Cancel”

Example of a Dialogue

User: “Pair.”

Voice output: “Do you want to add or delete a device?”

User: “Add.”

Voice output: “Using the pair function in the external device, enter <1234> to pair.”

(At this time, start the pairing process on the mobile phone that will be paired to the vehicle. See the mobile phone manufacturer's user guide for information on this process. Locate the device named UHP followed by a four-digit number in the list on the mobile phone. Follow the instructions on the mobile phone and enter the four-digit code provided by the system.)

Voice output: “Do you want to pair the device?”

User: “Yes.”

Voice output: “Paired, ending session.”

Selecting Phone from Device List

The “Select device” command can be used to select a different paired mobile phone. The UHP system asks for a device number that was assigned by the UHP system to the mobile phone when it was paired.

Example of a Dialogue

User: “Select device.”

Voice output: “Please say a device number to select.”

User: “device number.”

Voice output: “Do you want to select the device number “device number.”

(The device name appears on the infotainment display screen.)

User: “Yes.”

Voice output: “One moment please, the system searches for the selected device.”

Voice output: “Device number “device number” is selected, ending session.”

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Telephone Number Dialing

After the “Dial” command, the voice control requests input of a number.

The telephone number must be spoken in your normal speech without any artificial pauses between the numbers.

Recognition is best, if a pause of at least half a second is made after every three to five digits. The infotainment system then repeats the numbers recognized.

Available Commands:

- “Dial”: the inputs are accepted.
- “Digit”: a numeric value between “0–9” is entered.
- “Delete”: the number last entered or the block of numbers last entered is deleted.
- “Plus”: a preceding “+” is entered for a call abroad.
- “Verify”: the inputs are repeated by the voice output.
- “Asterisk”: an asterisk “*” is entered.
- “Hash”: a hash character “#” is entered.
- “Pause”: a pause is entered into the character sequence.
- “Help”
- “Cancel”

The telephone number entered can have a maximum length of 25 digits.

To be able to make a call abroad you can say the word “Plus” (+) at the beginning of your number. The plus allows you to call from any country without knowing the prefix for calls made abroad in that country. Then say the required country code.

Example of a Dialogue

User: “Dial.”

Voice output: “Please say the number to dial.”

User: “Plus four nine.”

User: “Seven three one.”

Voice output: “Seven three one.”

User: “One one nine nine.”

Voice output: “One one nine nine.”

User: “Dial.”

Voice output: “The number is being dialed.”

Making a Call Using Name Tag

When the “Call” command is used, a telephone number is entered that has been stored in the telephone book as a name tag.

Available commands:

- “Yes”
- “No”
- “Help”
- “Cancel”

Example of a Dialogue

User: “Call.”

Voice output: “Please say the name tag to call.”

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(For name tag information, see “Saving a Name Tag” later in this section.)

User: ”Name tag.“

Voice output: “Seven three one.”

User: “Yes.”

Voice output: “Calling.”

Starting a Second Call

Press ✆ or ✆ / 🎤 to start a second call during an active telephone call.

Available commands:

- “Send”: activate manual DTMF (touch-tone dialing), e.g., for voice mail or telephone banking.
- “Send name tag”: activate DTMF (touch-tone dialing) by entering a name tag.
- “Dial”
- “Call”
- “Re-dialing”
- “Help”
- “Cancel”

Example of a Dialogue

User: Press ✆ or ✆ / 🎤 if a telephone call is active.

User: “Send.”

Voice output: “Please say the number to send.”

(For number input information, see the dialogue example for “Making a Call Using a Telephone Number” earlier in this section.)

User: “Send.”

Re-dialing

The “Re-dialing” command re-dials the last number dialed.

Saving a Name Tag

The “Save” command is used to store a telephone number in the telephone book as a name tag.

The name entered must be repeated once. The pitch and pronunciation must be as identical as possible for both name inputs, otherwise the voice control will reject the inputs.

A maximum of 50 name tags can be stored in the telephone book.

Name tags are speaker-dependent, i.e., only the person who recorded a name tag can open it. To avoid the start of the recording of a saved name from being cut off, a short pause should be left after an input request.

To be able to use the name tag independently of the location, i.e., including other countries, all telephone numbers should be entered with a “plus” character and a country code.

Available commands:

- “Save”: the inputs are accepted.
- “Re-dialing”: the last input is repeated.
- “Help”
- “Cancel”

Example of a Dialogue

User: “Save.”

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Voice output: “Please say the number to save.”

User: Say number to save.

(For number input information, see the dialogue example for “Making a Call Using a Telephone Number” earlier in this section.)

User: “Save.”

User: “Name Tag” (give name tag).

Voice output: “Please repeat the name tag to confirm.”

User: “Name Tag.”

Voice output: “Saving the name tag.”

Deleting a Name Tag

The “Delete” command is used to delete a previously saved name tag.

Available commands:

- “Yes”
- “No”
- “Help”
- “Cancel”

Listening to Stored Name Tags

The “Directory” command is used to listen to all stored name tags.

Available commands:

- “Call”: the telephone number of the voice tag last read aloud is selected.
- “Delete”: the entry of the voice tag last read aloud is deleted.

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Climate Controls

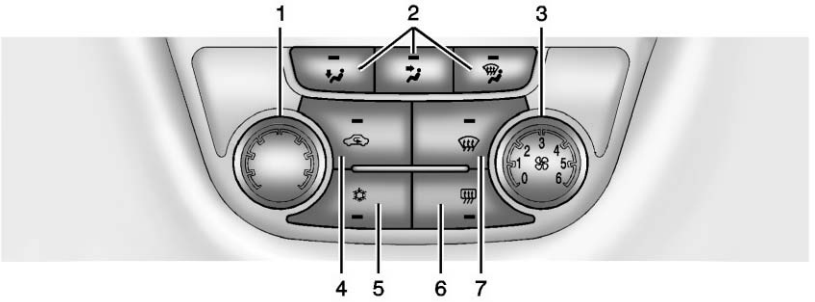
Climate Control Systems
Climate Control Systems 8-1
Dual Automatic Climate Control System 8-3

Air Vents
Air Vents 8-6

Maintenance
Air Intake 8-6
Passenger Compartment Air Filter 8-6

Climate Control Systems

The heating, cooling, defrosting, and ventilation for the vehicle can be controlled with this system.



1. Temperature Control
2. Air Delivery Modes
3. Fan Control
4. Recirculation
5. Air Conditioning
6. Rear Window Defogger
7. Defrost

(Fan Control): Turn the knob clockwise or counterclockwise to increase or decrease the fan speed. Turn the knob completely to 0 to turn off the fan and air conditioning compressor.

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Temperature Control: Turn the knob clockwise or counterclockwise to increase or decrease the temperature setting.

Air Delivery Mode Control:
Press , , or to change the direction of the airflow. Air delivery mode settings can be combined. An indicator light comes on in the selected mode button.

(Floor): Air is directed to the floor outlets.

(Vent): Air is directed to the instrument panel outlets.

(Defog): Air is directed to the windshield and side window vents.

(Defrost): Press to clear the windshield of fog or frost more quickly. Air is directed to the windshield.

For best results, clear all snow and ice from the windshield before defrosting.

Do not drive the vehicle until all the windows are clear.

Air Conditioning

(Air Conditioning): Press to turn the air conditioning on or off. An indicator light comes on. If the fan is turned off or the outside temperature falls below freezing, the air conditioning compressor will not work.

(Recirculation): Press to turn on the recirculation. An indicator light comes on. Air is recirculated inside the vehicle. It helps to quickly cool the air inside the vehicle or prevent outside air and odors from entering. To improve fuel efficiency and to cool the vehicle faster, recirculation may be automatically selected in warm weather when the temperature is set to the coldest setting. The recirculation light will not come on. Press to select recirculation; press it again to select outside air.

Rear Window Defogger

(Rear Defogger): Press to turn the rear window defogger on or off. The rear window defogger turns off after about 10 minutes. It can also be turned off by turning the ignition to ACC/ACCESSORY or LOCK/ OFF. If turned on again it runs for about five minutes before turning off.

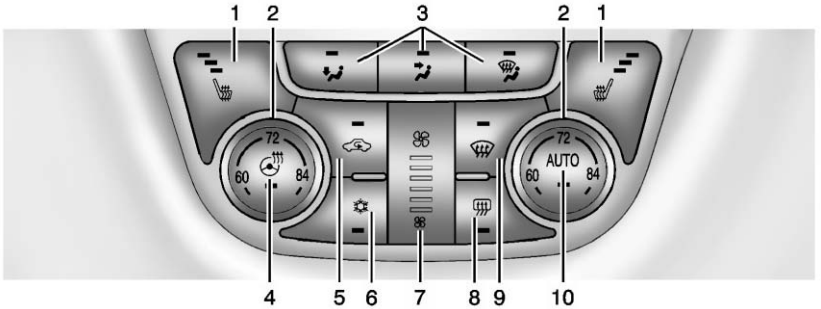
Do not drive the vehicle until all the windows are clear.

Notice: **Do not use a razor blade or sharp object to clear the inside rear window. Do not adhere anything to the defogger grid lines in the rear glass. These actions may damage the rear defogger. Repairs would not be covered by your warranty.**

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Dual Automatic Climate Control System

The heating, cooling, and ventilation for the vehicle can be controlled with this system.



English Shown, Metric Similar

1. Driver and Passenger Heated Seats (If Equipped)
2. Driver and Passenger Temperature Controls
3. Air Delivery Modes
4. Heated Steering Wheel (If Equipped)
5. Recirculation
6. Air Conditioning
7. Fan Controls
8. Rear Window Defogger
9. Defrost
10. AUTO (Automatic Operation)

Automatic Operation

The system automatically controls the fan speed, air delivery, air conditioning, and recirculation in order to heat or cool the vehicle to the desired temperature.

When the AUTO indicator light is on, the system is in full automatic operation. If the air delivery mode or fan setting is manually adjusted, the auto indicator turns off and displays will show the selected settings.

To place the system in automatic mode do the following:

1. Press AUTO.
2. Set the temperature. Allow the system time to stabilize. Then adjust the temperature as needed for best comfort.

   To improve fuel efficiency and to cool the vehicle faster, recirculation may be automatically selected in warm weather. The recirculation light

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will not come on. Press to select recirculation; press it again to select outside air.

English units can be changed to metric units through the Driver Information Center (DIC). See *Vehicle Personalization on page 5-31*.

Manual Operation

(Fan Control): Press the lower button to decrease the fan speed. Pressing the lower button longer turns the fan and cooling off. Press the upper button to increase the fan speed. The selected fan speed is indicated by a number on the display screen. Press AUTO to return to automatic operation.

Air Delivery Modes: Press , , or to change the direction of the airflow. Air delivery mode settings can be combined. An indicator light comes on in the selected mode button.

Changing the mode cancels the automatic operation and the system goes into manual mode. Press AUTO to return to automatic operation.

(Floor): Air is directed to the floor outlets.

(Vent): Air is directed to the instrument panel outlets.

(Defog): Air is directed to the windshield and side window vents.

(Defrost): Press to clear the windshield of fog or frost more quickly. Air is directed to the windshield.

For best results, clear all snow and ice from the windshield before defrosting.

(Air Conditioning): Press to turn the automatic air conditioning on or off. If the fan is turned off or the outside temperature falls below freezing, the air conditioning compressor will not run.

Press AUTO to return to automatic operation and the air conditioner runs as needed. When the indicator light is on, the air conditioner runs automatically to cool the air inside the vehicle or to dry the air needed to defog the windshield faster.

(Recirculation): Press to turn on recirculation. An indicator light comes on. Air is recirculated to quickly cool the inside of the vehicle or prevent outside air and odors from entering.

Auto Defog: The climate control system may have a sensor to automatically detect high humidity inside the vehicle. When high humidity is detected, the climate control system may adjust to outside air supply and turn on the air conditioner. If the climate control system does not detect possible window fogging, it returns to normal operation. To turn Auto Defog off or on, see "Climate and Air Quality" under *Vehicle Personalization on page 5-31*.

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Rear Window Defogger

(Rear Window Defogger): Press to turn the rear window defogger on or off.

The rear window defogger turns off automatically after about 10 minutes. If turned on again it runs for about five minutes before turning off.

The rear window defogger can be set to automatic operation; see "Climate and Air Quality" under *Vehicle Personalization on page 5-31*. When auto rear defog is selected, the rear window defogger turns on automatically when the interior temperature is cold and the outside temperature is about 4°C (40°F) and below. The auto rear defogger turns off automatically after about 10 minutes. At higher speeds, the rear window defogger may stay on continuously.

For vehicles with heated outside rearview mirrors, they turn on when the rear window defogger button is on and help to clear fog or frost from the surface of the mirrors. See *Heated Mirrors on page 2-12*.

Notice: **Do not try to clear frost or other material from the inside of the front windshield and rear window with a razor blade or anything else that is sharp. This may damage the rear window defogger grid and affect the radio's ability to pick up stations clearly. The repairs would not be covered by the vehicle warranty.**

or (Heated Seats, If Equipped): Press to turn the heated seats on or off. See *Heated Front Seats on page 3-8*.

(Heated Steering Wheel, If Equipped): Press to turn the heated steering wheel on or off. See *Heated Steering Wheel on page 5-3*.

Remote Start Climate Control Operation: For vehicles with the remote vehicle start feature, the climate control system may run when the vehicle is started remotely. The system uses the driver's previous settings to heat or cool the inside of the vehicle. The rear defog may come on during remote start based on cold ambient conditions. The rear defog indicator light does not come on during a remote start. If the vehicle has front heated seats, they may come on during a remote start. The heated seat indicator lights do not come on during a remote start. See *Remote Vehicle Start on page 2-5* and *Heated Front Seats on page 3-8*.

Sensors

The solar sensor, located on top of the instrument panel near the windshield, monitors the solar heat.

The climate control system uses the sensor information to adjust the temperature, fan speed, recirculation, and air delivery mode for best comfort.

If the sensor is covered, the automatic climate control system may not work properly.

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Air Vents

Use the louvers located on the air vents to change the direction of the airflow.

Use the thumbwheels near the air vents to control the amount of airflow or to shut off the airflow.

Operation Tips

- Keep all outlets open whenever possible for best system performance.
- Keep the paths under all seats clear of objects to help circulate the air inside the vehicle more effectively.
- Use of non-GM approved hood deflectors can adversely affect the performance of the system.

Maintenance

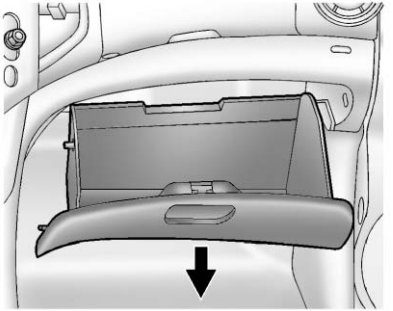
Air Intake

Clear away any ice, snow, or leaves from the air intake at the base of the windshield that can block the flow of air into the vehicle.

Passenger Compartment Air Filter

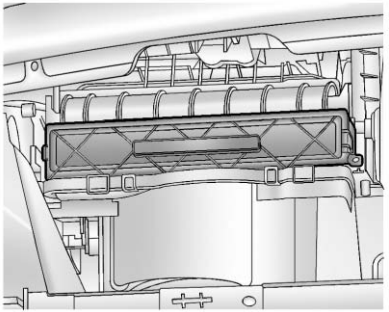
The filter removes dust, pollen, and other airborne irritants from outside air that is pulled into the vehicle.

The filter should be replaced as part of routine scheduled maintenance. See *Maintenance Schedule on page 11-3*. To find out what type of filter to use, see *Maintenance Replacement Parts on page 11-12*.



1. Open the glove box completely and disconnect the dampener on the outboard side.
2. Push in both sides of the glove box and pull to remove.
3. Open the filter cover by releasing tabs on both sides and pulling up the cover.

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4. Replace the air filter.
5. Close the air filter cover and reinstall the glove box.

See your dealer if additional assistance is needed.

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✍ NOTES

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Driving and Operating

Driving Information
Driver Behavior 9-2
Driving Environment 9-2
Vehicle Design 9-2
Distracted Driving 9-3
Defensive Driving 9-4
Drunk Driving 9-4
Control of a Vehicle 9-4
Braking 9-4
Steering 9-5
Off-Road Recovery 9-5
Loss of Control 9-6
Driving on Wet Roads 9-6
Highway Hypnosis 9-7
Hill and Mountain Roads 9-7
Winter Driving 9-8
If the Vehicle Is Stuck 9-10
Vehicle Load Limits 9-10

Starting and Operating
New Vehicle Break-In 9-15
Ignition Positions 9-15
Starting the Engine 9-17
Engine Heater 9-18
Retained Accessory Power (RAP) 9-19
Shifting Into Park 9-19
Shifting out of Park 9-20
Parking over Things That Burn 9-22

Engine Exhaust
Engine Exhaust 9-22
Running the Vehicle While Parked 9-23

Automatic Transmission
Automatic Transmission 9-23
Manual Mode 9-25

Drive Systems
All-Wheel Drive 9-26

Brakes
Antilock Brake System (ABS) 9-26
Parking Brake 9-27
Brake Assist 9-27
Hill Start Assist (HSA) 9-28

Ride Control Systems
Traction Control System (TCS) 9-28
StabiliTrak® System 9-30

Cruise Control
Cruise Control 9-32

Object Detection Systems
Forward Collision Alert (FCA) System 9-34
Ultrasonic Parking Assist 9-36
Rear Vision Camera (RVC) 9-38
Lane Departure Warning (LDW) 9-40

Information Provided by: DEALER E-PROCESS

Fuel
Fuel 9-42
Recommended Fuel 9-42
Gasoline Specifications 9-43
California Fuel Requirements 9-43
Fuels in Foreign Countries . . . 9-43
Fuel Additives 9-43
Filling the Tank 9-44
Filling a Portable Fuel Container 9-46

Towing
General Towing Information 9-47

Conversions and Add-Ons
Add-On Electrical Equipment 9-47

Driving Information

Driver Behavior

Driving is an important responsibility. Driver behavior, the driving environment, and the vehicle's design all affect how well a vehicle performs.

Being aware of these factors can help in understanding how the vehicle handles and what can be done to avoid many types of crashes, including a rollover crash.

Most serious injuries and fatalities to unbelted occupants can be reduced or prevented by the use of safety belts. In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a safety belt. In addition, avoiding excessive speed, sudden or abrupt turns, and drunken or aggressive driving can help make trips safer and avoid the possibility of a crash.

Driving Environment

Be prepared for driving in inclement weather, at night, or during other times where visibility or traction may be limited, such as on curves, slippery roads, or hilly terrain. Unfamiliar surroundings can also have hidden hazards.

Learn more about driving in different conditions and off-road driving in this section.

Vehicle Design

Utility vehicles have a significantly higher rollover rate than other types of vehicles. This is because they have a higher ground clearance and a narrower track or shorter wheelbase than passenger cars, which makes them more capable for off-road driving. While these design characteristics provide the driver with a better view of the road, these vehicles do have a higher center of gravity than other types of vehicles.

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A utility vehicle does not handle the same as a vehicle with a lower center of gravity, like a car, in similar situations.

Safe driver behavior and understanding of the environment can help avoid a rollover crash in any type of vehicle, including utility vehicles.

Distracted Driving

Distraction comes in many forms and can take your focus from the task of driving. Exercise good judgment and do not let other activities divert your attention away from the road. Many local governments have enacted laws regarding driver distraction. Become familiar with the local laws in your area.

To avoid distracted driving, always keep your eyes on the road, hands on the wheel, and mind on the drive.

- Do not use a phone in demanding driving situations. Use a hands-free method to place or receive necessary phone calls.
- Watch the road. Do not read, take notes, or look up information on phones or other electronic devices.
- Designate a front seat passenger to handle potential distractions.
- Become familiar with vehicle features before driving, such as programming favorite radio stations and adjusting climate control and seat settings. Program all trip information into any navigation device prior to driving.
- Wait until the vehicle is parked to retrieve items that have fallen to the floor.
- Stop or park the vehicle to tend to children.
- Keep pets in an appropriate carrier or restraint.
- Avoid stressful conversations while driving, whether with a passenger or on a cell phone.

⚠ WARNING

Taking your eyes off the road too long or too often could cause a crash resulting in injury or death. Focus your attention on driving.

Refer to the infotainment section for more information on using that system, including pairing and using a cell phone.

If equipped, refer to the navigation manual for information on that system, including pairing and using a cell phone.

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Defensive Driving

Defensive driving means “always expect the unexpected.” The first step in driving defensively is to wear the safety belt. See *Safety Belts on page 3-14*.

- Assume that other road users (pedestrians, bicyclists, and other drivers) are going to be careless and make mistakes. Anticipate what they might do and be ready.
- Allow enough following distance between you and the driver in front of you.
- Focus on the task of driving.

Drunk Driving

Death and injury associated with drinking and driving is a global tragedy.

⚠ WARNING

Drinking and then driving is very dangerous. Your reflexes, perceptions, attentiveness, and judgment can be affected by even a small amount of alcohol. You can have a serious — or even fatal — collision if you drive after drinking.

Do not drink and drive or ride with a driver who has been drinking. Ride home in a cab; or if you are with a group, designate a driver who will not drink.

Control of a Vehicle

Braking, steering, and accelerating are important factors in helping to control a vehicle while driving.

Braking

Braking action involves perception time and reaction time. Deciding to push the brake pedal is perception time. Actually doing it is reaction time.

Average driver reaction time is about three-quarters of a second. In that time, a vehicle moving at 100 km/h (60 mph) travels 20 m (66 ft), which could be a lot of distance in an emergency.

Helpful braking tips to keep in mind include:

- Keep enough distance between you and the vehicle in front of you.
- Avoid needless heavy braking.
- Keep pace with traffic.

If the engine ever stops while the vehicle is being driven, brake normally but do not pump the brakes. Doing so could make the pedal harder to push down. If the engine stops, there will be some

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power brake assist but it will be used when the brake is applied. Once the power assist is used up, it can take longer to stop and the brake pedal will be harder to push.

Steering

Electric Power Steering

The vehicle has electric power steering. It does not have power steering fluid. Regular maintenance is not required.

If power steering assist is lost due to a system malfunction, the vehicle can be steered, but may require increased effort. See your dealer if there is a problem.

If the steering wheel is turned until it reaches the end of its travel and is held against that position for an extended period of time, power steering assist may be reduced.

Normal use of the power steering assist should return when the system cools down.

See your dealer if there is a problem.

Curve Tips

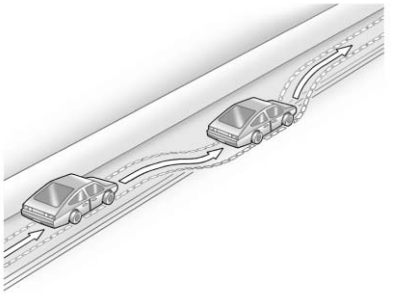
- Take curves at a reasonable speed.
- Reduce speed before entering a curve.
- Maintain a reasonable steady speed through the curve
- Wait until the vehicle is out of the curve before accelerating gently into the straightaway.

Steering in Emergencies

- There are some situations when steering around a problem may be more effective than braking.
- Holding both sides of the steering wheel allows you to turn 180 degrees without removing a hand.
- The Antilock Brake System (ABS) allows steering while braking.

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Off-Road Recovery



The vehicle's right wheels can drop off the edge of a road onto the shoulder while driving. Follow these tips:

1. Ease off the accelerator and then, if there is nothing in the way, steer the vehicle so that it straddles the edge of the pavement.
2. Turn the steering wheel about one-eighth of a turn, until the right front tire contacts the pavement edge.

3. Turn the steering wheel to go straight down the roadway.

Loss of Control

Skidding

There are three types of skids that correspond to the vehicle's three control systems:

- Braking Skid — wheels are not rolling.
- Steering or Cornering Skid — too much speed or steering in a curve causes tires to slip and lose cornering force.
- Acceleration Skid — too much throttle causes the driving wheels to spin.

Defensive drivers avoid most skids by taking reasonable care suited to existing conditions, and by not overdriving those conditions. But skids are always possible.

If the vehicle starts to slide, follow these suggestions:

- Ease your foot off the accelerator pedal and steer the way you want the vehicle to go. The vehicle may straighten out. Be ready for a second skid if it occurs.
- Slow down and adjust your driving according to weather conditions. Stopping distance can be longer and vehicle control can be affected when traction is reduced by water, snow, ice, gravel, or other material on the road. Learn to recognize warning clues — such as enough water, ice, or packed snow on the road to make a mirrored surface — and slow down when you have any doubt.
- Try to avoid sudden steering, acceleration, or braking, including reducing vehicle speed by shifting to a lower gear. Any sudden changes could cause the tires to slide.

Remember: Antilock brakes help avoid only the braking skid.

Driving on Wet Roads

Rain and wet roads can reduce vehicle traction and affect your ability to stop and accelerate. Always drive slower in these types of driving conditions and avoid driving through large puddles and deep-standing or flowing water.

⚠ WARNING

Wet brakes can cause crashes. They might not work as well in a quick stop and could cause pulling to one side. You could lose control of the vehicle.

After driving through a large puddle of water or a car/vehicle wash, lightly apply the brake pedal until the brakes work normally.

(Continued)

Information Provided by: DEALER E-PROCESS

WARNING (Continued)

Flowing or rushing water creates strong forces. Driving through flowing water could cause the vehicle to be carried away. If this happens, you and other vehicle occupants could drown. Do not ignore police warnings and be very cautious about trying to drive through flowing water.

Hydroplaning

Hydroplaning is dangerous. Water can build up under the vehicle's tires so they actually ride on the water. This can happen if the road is wet enough and you are going fast enough. When the vehicle is hydroplaning, it has little or no contact with the road.

There is no hard and fast rule about hydroplaning. The best advice is to slow down when the road is wet.

Other Rainy Weather Tips

Besides slowing down, other wet weather driving tips include:

- Allow extra following distance.
- Pass with caution.
- Keep windshield wiping equipment in good shape.
- Keep the windshield washer fluid reservoir filled.
- Have good tires with proper tread depth. See *Tires on page 10-35*.
- Turn off cruise control.

Highway Hypnosis

Always be alert and pay attention to your surroundings while driving. If you become tired or sleepy, find a safe place to park the vehicle and rest.

Other driving tips include:

- Keep the vehicle well ventilated.
- Keep the interior temperature cool.
- Keep your eyes moving — scan the road ahead and to the sides.
- Check the rearview mirror and vehicle instruments often.

Hill and Mountain Roads

Driving on steep hills or through mountains is different than driving on flat or rolling terrain. Tips for driving in these conditions include:

- Keep the vehicle serviced and in good shape.
- Check all fluid levels and brakes, tires, cooling system, and transmission.
- Shift to a lower gear when going down steep or long hills.

Information Provided by: DEALER E-PROCESS

⚠ WARNING

If you do not shift down, the brakes could get so hot that they would not work well. You would then have poor braking or even none going down a hill. You could crash. Shift down to let the engine assist the brakes on a steep downhill slope.

⚠ WARNING

Coasting downhill in N (Neutral) or with the ignition off is dangerous. The brakes will have to do all the work of slowing down and they could get so hot that they would not work well. You would then have poor braking or even none going down a hill. Steering may also be affected when ignition is off. You could

(Continued)

WARNING (Continued)

crash. Always have the engine running and the vehicle in gear when going downhill.

- Stay in your own lane. Do not swing wide or cut across the center of the road. Drive at speeds that let you stay in your own lane.
- Be alert on top of hills; something could be in your lane (stalled car, accident).
- Pay attention to special road signs (falling rocks area, winding roads, long grades, passing or no-passing zones) and take appropriate action.

Winter Driving

Driving on Snow or Ice

Drive carefully when there is snow or ice between the tires and the road, creating less traction or grip. Wet ice can occur at about 0°C (32°F) when freezing rain begins to fall, resulting in even less traction. Avoid driving on wet ice or in freezing rain until roads can be treated with salt or sand.

Drive with caution, whatever the condition. Accelerate gently so traction is not lost. Accelerating too quickly causes the wheels to spin and makes the surface under the tires slick, so there is even less traction.

Try not to break the fragile traction. If you accelerate too fast, the drive wheels will spin and polish the surface under the tires even more.

The Antilock Brake System (ABS) improves vehicle stability during hard stops on slippery roads, but apply the brakes sooner than when on dry pavement. See *Antilock Brake System (ABS) on page 9-26*.

Allow greater following distance on any slippery road and watch for slippery spots. Icy patches can occur on otherwise clear roads in

Information Provided by: DEALER E-PROCESS

shaded areas. The surface of a curve or an overpass can remain icy when the surrounding roads are clear. Avoid sudden steering maneuvers and braking while on ice.

Turn off cruise control on slippery surfaces.

Blizzard Conditions

Being stuck in snow can be a serious situation. Stay with the vehicle unless there is help nearby. If possible, use Roadside Assistance. See *Roadside Assistance Program (Mexico) on page 13-7* or *Roadside Assistance Program (U.S. and Canada) on page 13-11*. To get help and keep everyone in the vehicle safe:

- Turn on the hazard warning flashers.
- Tie a red cloth to an outside mirror.

⚠ WARNING

Snow can trap engine exhaust under the vehicle. This may cause exhaust gases to get inside. Engine exhaust contains carbon monoxide (CO) which cannot be seen or smelled. It can cause unconsciousness and even death.

If the vehicle is stuck in the snow:

- Clear away snow from around the base of your vehicle, especially any that is blocking the exhaust pipe.
- Check again from time to time to be sure snow does not collect there.
- Open a window about 5 cm (2 in) on the side of the vehicle that is away from the wind to bring in fresh air.

(Continued)

WARNING (Continued)

- Fully open the air outlets on or under the instrument panel.
- Adjust the climate control system to a setting that circulates the air inside the vehicle and set the fan speed to the highest setting. See “Climate Control Systems” in the Index.

For more information about carbon monoxide, see *Engine Exhaust on page 9-22*.

To save fuel, run the engine for only short periods as needed to warm the vehicle and then shut the engine off and close the window most of the way to save heat. Repeat this until help arrives but only when you feel really uncomfortable from the cold. Moving about to keep warm also helps.

Information Provided by: DEALER E-PROCESS

If it takes some time for help to arrive, now and then when you run the engine, push the accelerator pedal slightly so the engine runs faster than the idle speed. This keeps the battery charged to restart the vehicle and to signal for help with the headlamps. Do this as little as possible to save fuel.

If the Vehicle Is Stuck

Slowly and cautiously spin the wheels to free the vehicle when stuck in sand, mud, ice, or snow.

If stuck too severely for the traction system to free the vehicle, turn the traction system off and use the rocking method. See *Traction Control System (TCS) on page 9-28*.

⚠ WARNING

If the vehicle's tires spin at high speed, they can explode, and you or others could be injured. The vehicle can overheat, causing an engine compartment fire or other damage. Spin the wheels as little as possible and avoid going above 56 km/h (35 mph).

Rocking the Vehicle to Get it Out

Turn the steering wheel left and right to clear the area around the front wheels. Turn off any traction system. Shift back and forth between R (Reverse) and a low forward gear, spinning the wheels as little as possible. To prevent transmission wear, wait until the wheels stop spinning before shifting gears. Release the accelerator pedal while shifting, and press lightly on the accelerator pedal when the transmission is in gear.

Slowly spinning the wheels in the forward and reverse directions causes a rocking motion that could free the vehicle. If that does not get the vehicle out after a few tries, it might need to be towed out. If the vehicle does need to be towed out, see *Towing the Vehicle on page 10-64*.

Vehicle Load Limits

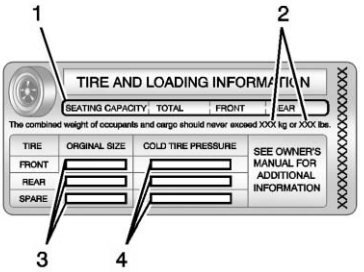
It is very important to know how much weight the vehicle can carry. This weight is called the vehicle capacity weight and includes the weight of all occupants, cargo, and all nonfactory-installed options. Two labels on the vehicle show how much weight it may properly carry: the Tire and Loading Information label and the Certification label.

Information Provided by: DEALER E-PROCESS

⚠ WARNING

Do not load the vehicle any heavier than the Gross Vehicle Weight Rating (GVWR), or either the maximum front or rear Gross Axle Weight Rating (GAWR). This can cause systems to break and change the way the vehicle handles. This could cause loss of control and a crash. Overloading can also shorten the life of the vehicle.

Tire and Loading Information Label



Label Example

A vehicle-specific Tire and Loading Information label is attached to the vehicle's center pillar (B-pillar). The Tire and Loading Information label shows the number of occupant seating positions (1), and the maximum vehicle capacity weight (2) in kilograms and pounds.

The Tire and Loading Information label also shows the tire size of the original equipment tires (3) and the recommended cold tire inflation pressures (4). For more information on tires and inflation see *Tires on page 10-35* and *Tire Pressure on page 10-42*.

There is also important loading information on the Certification label. It tells you the Gross Vehicle Weight Rating (GVWR) and the Gross Axle Weight Rating (GAWR) for the front and rear axle. See “Certification Label” later in this section.

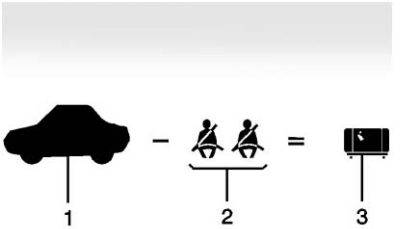
Steps for Determining Correct Load Limit

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle’s placard.

Information Provided by: DEALER E-PROCESS

2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400 - 750 (5 x 150) = 650 lbs.)
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

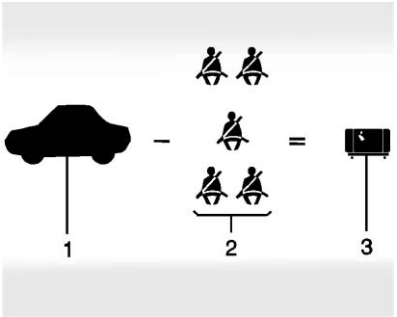
This vehicle is neither designed nor intended to tow a trailer.



Example 1

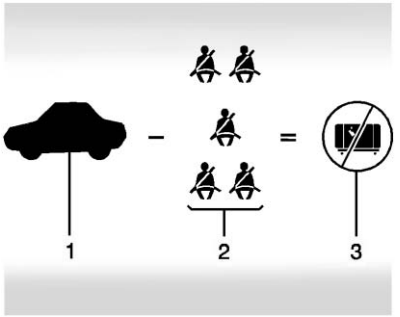
1. Vehicle Capacity Weight for Example 1 = 453 kg (1,000 lbs).
2. Subtract Occupant Weight @ 68 kg (150 lbs) × 2 = 136 kg (300 lbs).
3. Available Occupant and Cargo Weight = 317 kg (700 lbs).

Information Provided by:
DEALER E-PROCESS



Example 2

1. Vehicle Capacity Weight for Example 2 = 453 kg (1,000 lbs).
2. Subtract Occupant Weight @ 68 kg (150 lbs) × 5 = 340 kg (750 lbs).
3. Available Cargo Weight = 113 kg (250 lbs).

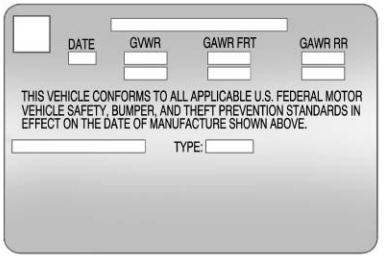


Example 3

1. Vehicle Capacity Weight for Example 3 = 453 kg (1,000 lbs).
2. Subtract Occupant Weight @ 91 kg (200 lbs) × 5 = 453 kg (1,000 lbs).
3. Available Cargo Weight = 0 kg (0 lbs).

Refer to the vehicle's Tire and Loading Information label for specific information about the vehicle's capacity weight and seating positions. The combined weight of the driver, passengers, and cargo should never exceed the vehicle's capacity weight.

Certification Label



Label Example

A vehicle-specific Certification label is attached to the vehicle's center pillar (B-pillar). The label tells the gross weight capacity of the vehicle, called the Gross Vehicle Weight Rating (GVWR).

Information Provided by:
DEALER E-PROCESS

The GVWR includes the weight of the vehicle, all occupants, fuel, and cargo. Never exceed the GVWR for the vehicle, or the Gross Axle Weight Rating (GAWR) for either the front or rear axle.

And, if there is a heavy load, it should be spread out. See "Steps for Determining Correct Load Limit" earlier in this section.

⚠ WARNING

Do not load the vehicle any heavier than the Gross Vehicle Weight Rating (GVWR), or either the maximum front or rear Gross Axle Weight Rating (GAWR). This can cause systems to break and change the way the vehicle handles. This could

(Continued)

WARNING (Continued)

cause loss of control and a crash. Overloading can also shorten the life of the vehicle.

If you put things inside the vehicle — like suitcases, tools, packages, or anything else — they will go as fast as the vehicle goes. If you have to stop or turn quickly, or if there is a crash, they will keep going.

⚠ WARNING

Things inside the vehicle can strike and injure people in a sudden stop or turn, or in a crash.

- Put things in the cargo area of the vehicle. In the cargo area, put them as

(Continued)

WARNING (Continued)

far forward as possible. Try to spread the weight evenly.

- Never stack heavier things, like suitcases, inside the vehicle so that some of them are above the tops of the seats.
- Do not leave an unsecured child restraint in the vehicle.
- Secure loose items in the vehicle.
- Do not leave a seat folded down unless needed.

Information Provided by: DEALER E-PROCESS

Starting and Operating

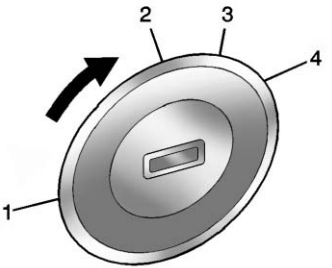
New Vehicle Break-In

Notice: **The vehicle does not need an elaborate break-in. But it will perform better in the long run if you follow these guidelines:**

- **Do not drive at any one constant speed, fast or slow, for the first 805 km (500 mi). Do not make full-throttle starts. Avoid downshifting to brake or slow the vehicle.**
- **Avoid making hard stops for the first 322 km (200 mi) or so. During this time the new brake linings are not yet broken in. Hard stops with new linings can mean premature wear and earlier replacement. Follow this breaking-in guideline every time you get new brake linings.**

Following break-in, engine speed and load can be gradually increased.

Ignition Positions



The ignition switch has four different positions.

The key must be fully extended to start the vehicle.

To shift out of P (Park), the ignition must be in ON/RUN and the regular brake pedal applied.

1 (STOPPING THE ENGINE/LOCK/OFF): When the vehicle is stopped, turn the ignition switch to LOCK/OFF to turn the engine off.

This position locks the steering wheel, ignition, and transmission.

The ignition switch can bind in the LOCK/OFF position with the wheels turned off center. If this happens, move the steering wheel from right to left while turning the key to ACC/ACCESSORY. If this does not work, then the vehicle needs service.

Do not turn the engine off when the vehicle is moving. This will cause a loss of power assist in the brake and steering systems and disable the airbags.

If the vehicle must be shut off in an emergency:

1. Brake using a firm and steady pressure. Do not pump the brakes repeatedly. This may deplete power assist, requiring increased brake pedal force.

Information Provided by: DEALER E-PROCESS

2. Shift the vehicle to N (Neutral). This can be done while the vehicle is moving. After shifting to N (Neutral), firmly apply the brakes and steer the vehicle to a safe location.
3. Come to a complete stop, shift to P (Park), and turn the ignition to LOCK/OFF. On vehicles with an automatic transmission, the shift lever must be in P (Park) to turn the ignition switch to the LOCK/OFF position.
4. Set the parking brake. See *Parking Brake on page 9-27*.

⚠ WARNING

Turning off the vehicle while moving may cause loss of power assist in the brake and steering systems and disable the airbags. While driving, only shut the vehicle off in an emergency.

If the vehicle cannot be pulled over, and must be shut off while driving, turn the ignition to ACC/ ACCESSORY.

Notice: **Using a tool to force the key to turn in the ignition could cause damage to the switch or break the key. Use the correct key, make sure it is all the way in, and turn it only with your hand. If the key cannot be turned by hand, see your dealer.**

2 (ACC/ACCESSORY): This is the position in which you can operate things like the radio and the windshield wipers when the engine is off.

3 (ON/RUN): This position can be used to operate the electrical accessories and to display some instrument cluster warning and indicator lights. This position can also be used for service and diagnostics, and to verify the proper operation of the malfunction indicator lamp as may be required for emission inspection purposes. The switch stays in this position when the engine is running.

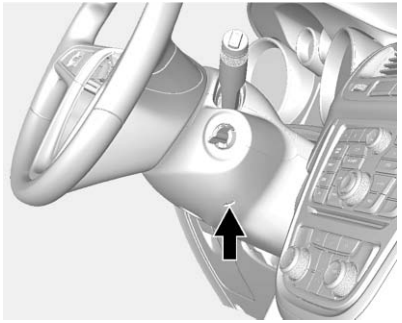
If you leave the key in the ACC/ ACCESSORY or ON/RUN position with the engine off, the battery could be drained. You may not be able to start the vehicle if the battery is allowed to drain for an extended period of time.

4 (START): This is the position that starts the engine. When the engine starts, release the key. The ignition switch returns to ON/RUN for driving.

A warning tone will sound when the driver door is opened, the ignition is in ACC/ACCESSORY or LOCK/ OFF, and the key is in the ignition. If the ignition becomes difficult to turn, see *Keys on page 2-1*.

Information Provided by: DEALER E-PROCESS

Key Lock Release



Vehicles with an automatic transmission may be equipped with an electronic key lock release system. This system is to prevent ignition key removal unless the shift lever is in P (Park).

The key lock release will not work if the battery is charged less than 9-volts, or uncharged. Try charging or jump starting the battery. See *Jump Starting on page 10-61*.

If charging or jump starting the battery does not work, there is a manual key lock release. Locate the hole below the ignition lock. Insert a tool or key into the opening. Locate the lever, and press it toward the driver while removing the key from the ignition.

Starting the Engine

Move the shift lever to P (Park) or N (Neutral). The engine will not start in any other position. To restart the vehicle when it is already moving, use N (Neutral) only.

Notice: **Do not try to shift to P (Park) if the vehicle is moving. If you do, you could damage the transmission. Shift to P (Park) only when the vehicle is stopped.**

Notice: **If you add electrical parts or accessories, you could change the way the engine operates. Any resulting damage would not be covered by the vehicle warranty. See *Add-On Electrical Equipment on page 9-47*.**

Information Provided by: DEALER E-PROCESS

Starting Procedure

1. With your foot off the accelerator pedal, turn the ignition key to START. When the engine starts, let go of the ignition.

   The idle speed will go down as your engine gets warm. Do not race the engine immediately after starting it. Operate the engine and transmission gently to allow the oil to warm up and lubricate all moving parts.

   The vehicle has a Computer-Controlled Cranking System. This feature assists in starting the engine and protects components. If the ignition key is turned to the START position, and then released when the engine begins cranking, the engine will continue cranking for a few seconds or until the vehicle starts. If the engine does not start and the key is held in START for many seconds, cranking will be stopped after 15 seconds to prevent cranking

motor damage. To prevent gear damage, this system also prevents cranking if the engine is already running. Engine cranking can be stopped by turning the ignition switch to ACC/ACCESSORY or LOCK/OFF.

Notice: **Cranking the engine for long periods of time, by returning the key to the START position immediately after cranking has ended, can overheat and damage the cranking motor, and drain the battery. Wait at least 15 seconds between each try, to let the cranking motor cool down.**

2. If the engine does not start after five to 10 seconds, especially in very cold weather (below −18°C or 0°F), it could be flooded with too much gasoline. Try pushing the accelerator pedal all the way to the floor and holding it there as you hold the key in START for up to a maximum of 15 seconds. Wait at least 15 seconds between each try, to allow the cranking motor to cool down. When the engine starts, let go of the key or button, and the accelerator. If the vehicle starts briefly but then stops again, do the same thing. This clears the extra gasoline from the engine. Do not race the engine immediately after starting it. Operate the engine and transmission gently until the oil warms up and lubricates all moving parts.

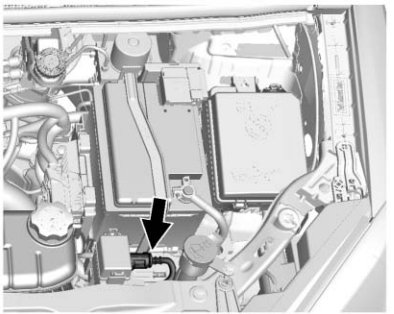
Engine Heater

Vehicles with the 1.4L engine may have an engine heater. The engine heater can help in cold weather conditions at or below −18°C (0°F) for easier starting and better fuel economy during engine warm-up. Plug in the heater at least four hours before starting the vehicle. An internal thermostat in the plug-end of the cord will prevent engine heater operation at temperatures above −18°C (0°F).

Information Provided by: DEALER E-PROCESS

To Use The Engine Heater

1. Turn off the engine.



3. Open the hood and unwrap the electrical cord. The cord is located in the driver side of the engine compartment, near the battery. It is shipped from the factory with a tie holding it in place. Use care in removing the tie so that the cord is not damaged.
4. Plug it into a normal, grounded 110-volt AC outlet.

⚠ WARNING

Plugging the cord into an ungrounded outlet could cause an electrical shock. Also, the wrong kind of extension cord could overheat and cause a fire. You could be seriously injured. Plug the cord into a properly grounded three-prong 110-volt AC outlet. If the cord will not reach, use a heavy-duty three-prong extension cord rated for at least 15 amps.

5. Before starting the engine, be sure to unplug and store the cord as it was before to keep it away from moving engine parts. If you do not it could be damaged.

The length of time the heater should remain plugged in depends on several factors. Ask a dealer in the area where you will be parking the vehicle for the best advice on this.

Retained Accessory Power (RAP)

These vehicle accessories may be used for up to 10 minutes after the engine is turned off:

- Audio System
- Power Windows
- Sunroof

The power windows and sunroof will continue to work for up to 10 minutes or until any door is opened. The radio will work when the key is in ON/RUN or ACC/ACCESSORY. Once the key is turned from ON/RUN to LOCK/OFF, the radio will continue to work for 10 minutes, or until the driver door is opened.

Shifting Into Park

1. Hold the brake pedal down and set the parking brake. See *Parking Brake on page 9-27*.
2. Move the shift lever into P (Park) by pressing the button on the shift lever and pushing the lever all the way toward the front of the vehicle.
3. Turn the ignition key to LOCK/OFF.
4. Remove the key and take it with you. If you can leave the vehicle with the ignition key in your hand, the vehicle is in P (Park).

Leaving the Vehicle with the Engine Running (Automatic Transmission)

⚠ WARNING

It can be dangerous to leave the vehicle with the engine running. It could overheat and catch fire.

It is dangerous to get out of the vehicle if the shift lever is not fully in P (Park) with the parking brake firmly set. The vehicle can roll.

(Continued)

Information Provided by: DEALER E-PROCESS

WARNING (Continued)

Do not leave the vehicle when the engine is running. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will not move, even when you are on fairly level ground, always set the parking brake and move the shift lever to P (Park). See *Shifting Into Park on page 9-19*.

If you have to leave the vehicle with the engine running, be sure the vehicle is in P (Park) and the parking brake is firmly set before you leave it. After you have moved the shift lever into P (Park), hold the brake pedal down. Then see if you can move the shift lever away from P (Park) without first pushing the button on the shift lever. If you can, it means that the shift lever was not fully locked into P (Park).

Torque Lock (Automatic Transmission)

If you are parking on a hill and you do not shift your transmission into P (Park) properly, the weight of the vehicle may put too much force on the parking pawl in the transmission. You may find it difficult to pull the shift lever out of P (Park). This is called “torque lock.”
To prevent torque lock, set the parking brake and then shift into P (Park) properly before you leave the driver seat. To find out how, see “Shifting Into Park (Automatic Transmission)” in this section.

When you are ready to drive, move the shift lever out of P (Park) before you release the parking brake.

If torque lock does occur, you may need to have another vehicle push yours a little uphill to take some of the pressure from the parking pawl in the transmission, so you can pull the shift lever out of P (Park).

Shifting out of Park

This vehicle is equipped with a shift lock control. The shift lock control is designed to:

- Prevent ignition key removal unless the shift lever is in P (Park) with the shift lever button fully released.
- Prevent movement of the shift lever out of P (Park) unless the ignition is in ON/RUN and the brake pedal is applied.

The shift lock control is always functional except in the case of an uncharged or low voltage (less than 9-volt) battery.

If the vehicle has an uncharged battery or a battery with low voltage, try charging or jump starting the battery. See *Jump Starting on page 10-61*.

To shift out of P (Park):

1. Apply the brake pedal.
2. Turn the ignition to ON/RUN.

Information Provided by: DEALER E-PROCESS

3. Press the shift lever button.
4. Move the shift lever to the desired position.

If still unable to shift out of P (Park):

1. Fully release the shift lever button.
2. Hold the brake pedal down and press the shift lever button again.
3. Move the shift lever to the desired position.

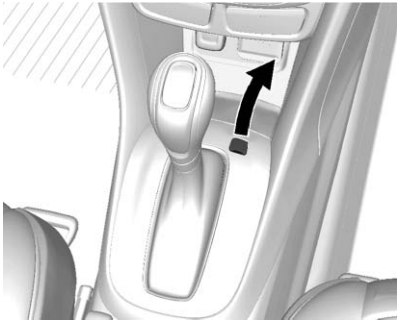
If the shift lever still cannot be moved from P (Park), see “Shift Lock Manual Release.”

Shift Lock Manual Release

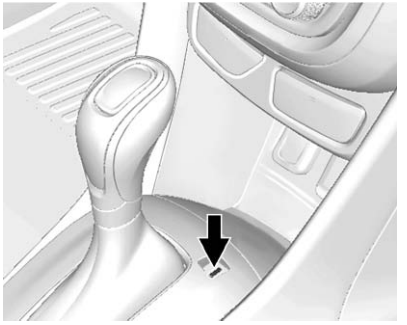
The automatic transmission has an electric park lock. The key must be in the ON/RUN position, and the brake pedal pressed so the shift lever can be moved from the P (Park) position. If the battery has lost power, the shift lever cannot be moved from P (Park) unless the shift lock manual release is disengaged manually.

To access the shift lock manual release:

1. Turn the ignition OFF and remove the key.
2. Hold the brake pedal down. Apply the parking brake.



3. Remove the cover on the console.



4. Insert and press the ignition key into the slot.
5. Move the shift lever out of P (Park). If P (Park) is selected again after the key is removed from the slot, the shift lever will be locked again.
6. Remove the key from the slot.
7. Close the cover.
8. Have the cause of the problem fixed by your dealer.

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Parking over Things That Burn

⚠ WARNING

Things that can burn could touch hot exhaust parts under the vehicle and ignite. Do not park over papers, leaves, dry grass, or other things that can burn.

Engine Exhaust

⚠ WARNING

Engine exhaust contains carbon monoxide (CO) which cannot be seen or smelled. Exposure to CO can cause unconsciousness and even death.

Exhaust may enter the vehicle if:

- The vehicle idles in areas with poor ventilation (parking garages, tunnels, deep snow that may block underbody airflow or tail pipes).
- The exhaust smells or sounds strange or different.
- The exhaust system leaks due to corrosion or damage.
- The vehicle exhaust system has been modified, damaged, or improperly repaired.

(Continued)

WARNING (Continued)

- There are holes or openings in the vehicle body from damage or aftermarket modifications that are not completely sealed.

If unusual fumes are detected or if it is suspected that exhaust is coming into the vehicle:

- Drive it only with the windows completely down.
- Have the vehicle repaired immediately.

Never park the vehicle with the engine running in an enclosed area such as a garage or a building that has no fresh air ventilation.

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Running the Vehicle While Parked

It is better not to park with the engine running.

If the vehicle is left with the engine running, follow the proper steps to be sure the vehicle will not move. See *Shifting Into Park on page 9-19* and *Engine Exhaust on page 9-22*.

Automatic Transmission



The selected gear is also shown in the instrument cluster.

P (Park): This position locks the drive wheels. It is the best position to use when starting the engine because the vehicle cannot move easily.

⚠ WARNING

It is dangerous to get out of the vehicle if the shift lever is not fully in P (Park) with the parking brake firmly set. The vehicle can roll.

Do not leave the vehicle when the engine is running. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will not move, even when you are on fairly level ground, always set the parking brake and move the shift lever to P (Park). See *Shifting Into Park on page 9-19*.

Make sure the shift lever is fully in P (Park) before starting the engine. The vehicle has an automatic transmission shift lock control system. The regular brake must be fully applied first and then the shift lever button pressed before shifting from P (Park) when the ignition key

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is in ON/RUN. If you cannot shift out of P (Park), ease pressure on the shift lever, then push the shift lever all the way into P (Park) as you maintain brake application. Then press the shift lever button and move the shift lever into another gear. See *Shifting out of Park on page 9-20*.

R (Reverse): Use this gear to back up.

Notice: **Shifting to R (Reverse) while the vehicle is moving forward could damage the transmission. The repairs would not be covered by the vehicle warranty. Shift to R (Reverse) only after the vehicle is stopped.**

To rock the vehicle back and forth to get out of snow, ice, or sand without damaging the transmission, see *If the Vehicle Is Stuck on page 9-10*.

N (Neutral): In this position, the engine does not connect with the wheels. To restart the engine when the vehicle is already moving, use N (Neutral) only. Also, use N (Neutral) when the vehicle is being towed.

The vehicle has an automatic neutral shift feature which allows the transmission to automatically shift to N (Neutral) when the vehicle is stopped with a forward gear engaged. The reduced load on the engine improves vehicle fuel economy.

⚠ WARNING

Shifting into a drive gear while the engine is running at high speed is dangerous. Unless your foot is firmly on the brake pedal, the vehicle could move very rapidly. You could lose control and hit people or objects. Do not shift into a drive gear while the engine is running at high speed.

Notice: **Shifting out of P (Park) or N (Neutral) with the engine running at high speed may damage the transmission. The repairs would not be covered by the vehicle warranty. Be sure the engine is not running at high speed when shifting the vehicle.**

D (Drive): This position is for normal driving. It provides the best fuel economy. If more power is needed for passing, and the vehicle is:

- Going less than 56 km/h (35 mph), push the accelerator pedal about halfway down.
- Going about 56 km/h (35 mph) or more, push the accelerator all the way down.

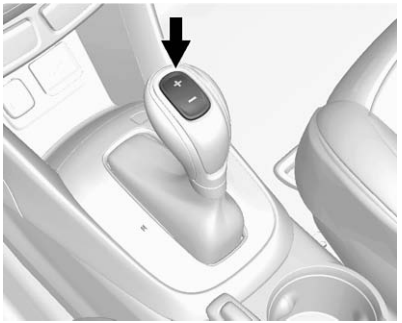
M (Manual Mode): This position allows shifting similar to a manual transmission. See *Manual Mode on page 9-25*.

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Notice: **If the vehicle seems to accelerate slowly or not shift gears when you go faster, and you continue to drive the vehicle that way, you could damage the transmission. Have the vehicle serviced right away.**

Manual Mode

Driver Shift Control (DSC)



To use this feature:

1. Move the shift lever from D (Drive) rearward to M (Manual Mode).

   While driving in manual mode, the transmission will remain in the driver selected gear. When coming to a stop in the manual position, the vehicle will automatically shift into 1 (First) gear.

2. Press the + (plus) end of the button on the top of the shift lever to upshift, or push the − (minus) end of the button to downshift.

The instrument cluster will change from the currently displayed message to the letter “M,” for Manual position, and a number indicating the requested gear.

While using the DSC feature, the transmission will have firmer shifting and sportier performance. This can be used for sport driving or when climbing hills to stay in gear longer or to downshift for more power or engine braking.

The transmission will only allow you to shift into gears appropriate for the vehicle speed and engine revolutions per minute (rpm):

- The transmission will not allow shifting to the next higher gear if the vehicle speed or engine rpm is too low.
- The transmission will not allow shifting to the next lower gear if the vehicle speed or engine rpm is too high.

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Drive Systems

All-Wheel Drive

If equipped, this feature transfers engine power, as required, to all four wheels. It is fully automatic, and adjusts itself as needed for road conditions.

When using a compact spare tire on an All-Wheel Drive (AWD) vehicle, the system automatically detects the compact spare and disables AWD to protect the system. A Driver Information Center (DIC) message will display on the instrument cluster. See *Vehicle Messages on page 5-25*. To restore AWD operation and prevent excessive wear on the system, replace the compact spare with a full-size tire as soon as possible. See *Compact Spare Tire on page 10-61*.

AWD will be disabled and the message will display if there is excessive wheel spin. When the system cools down, AWD will be restored.

Brakes

Antilock Brake System (ABS)

This vehicle has ABS, an advanced electronic braking system that helps prevent a braking skid.

When the vehicle begins to drive away, ABS checks itself.
A momentary motor or clicking noise might be heard while this test is going on, and it might even be noticed that the brake pedal moves a little. This is normal.



If there is a problem with ABS, this warning light stays on. See *Antilock Brake System (ABS) Warning Light on page 5-17*.

If driving safely on a wet road and it becomes necessary to slam on the brakes and continue braking to avoid a sudden obstacle, a computer senses that the wheels are slowing down. If one of the wheels is about to stop rolling, the computer will separately work the brakes at each wheel.

ABS can change the brake pressure to each wheel, as required, faster than any driver could. This can help you steer around the obstacle while braking hard.

As the brakes are applied, the computer keeps receiving updates on wheel speed and controls braking pressure accordingly.

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Remember: ABS does not change the time needed to get a foot up to the brake pedal or always decrease stopping distance. If you get too close to the vehicle in front of you, there will not be enough time to apply the brakes if that vehicle suddenly slows or stops. Always leave enough room up ahead to stop, even with ABS.

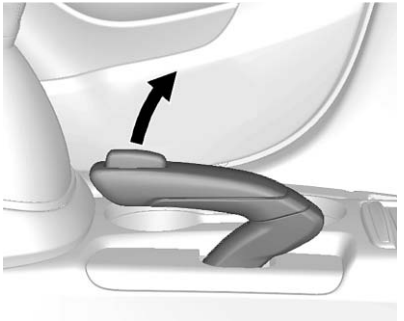
Using ABS

Do not pump the brakes. Just hold the brake pedal down firmly and let ABS work. You might hear the ABS pump or motor operating and feel the brake pedal pulsate, but this is normal.

Braking in Emergencies

ABS allows you to steer and brake at the same time. In many emergencies, steering can help more than even the very best braking.

Parking Brake



To set the parking brake, hold the brake pedal down and pull up on the parking brake lever. If the ignition is on, the brake system warning light will come on. See *Brake System Warning Light on page 5-16*.

To release the parking brake, hold the brake pedal down. Pull the parking brake lever up until you can press the release button. Hold the release button in as you move the brake lever all the way down.

Notice: **Driving with the parking brake on can overheat the brake system and cause premature wear or damage to brake system parts. Make sure that the parking brake is fully released and the brake warning light is off before driving.**

Brake Assist

This vehicle has a brake assist feature designed to assist the driver in stopping or decreasing vehicle speed in emergency driving conditions. This feature uses the stability system hydraulic brake control module to supplement the power brake system under conditions where the driver has quickly and forcefully applied the brake pedal in an attempt to quickly stop or slow down the vehicle. The stability system hydraulic brake control module increases brake pressure at each corner of the vehicle until the ABS activates.

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Minor brake pedal pulsation or pedal movement during this time is normal and the driver should continue to apply the brake pedal as the driving situation dictates. The brake assist feature will automatically disengage when the brake pedal is released or brake pedal pressure is quickly decreased.

Hill Start Assist (HSA)

This vehicle has an HSA feature, which may be useful when the vehicle is stopped on a grade. This feature is designed to prevent the vehicle from rolling, either forward or rearward, during vehicle drive off.

After the driver completely stops and holds the vehicle in a complete standstill on a grade, HSA will be automatically activated. During the transition period between when the driver releases the brake pedal and starts to accelerate to drive off on a grade, HSA holds the braking pressure to ensure that there is no rolling. The brakes will automatically release when the accelerator pedal is applied within the two-second window. It will not activate if the vehicle is in a drive gear and facing downhill, or if the vehicle is facing uphill and in R (Reverse).

Ride Control Systems

Traction Control System (TCS)

The vehicle has a Traction Control System (TCS) that limits wheel spin. On a front-wheel-drive vehicle, the system operates if it senses that one or both of the front wheels are spinning or beginning to lose traction. On an All-Wheel-Drive (AWD) vehicle, the system will operate if it senses that any of the wheels are spinning or beginning to lose traction. When this happens, the system brakes the spinning wheel(s), and/or reduces engine power to limit wheel spin.

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The system may be heard or felt while it is working, but this is normal.

TCS is on whenever the vehicle is started. To limit wheel spin, especially in slippery road conditions, the system should always be left on. But, TCS can be turned off if needed.



TCS/StabiliTrak Light

flashes to indicate that the traction control system is active.

If there is a problem detected with TCS, comes on and stays on, the vehicle is safe to drive but the system is not operational. Driving should be adjusted accordingly.

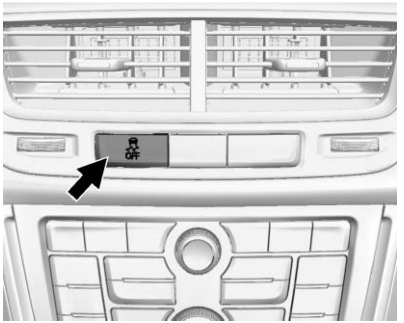
If comes on and stays on, reset the system:

1. Stop the vehicle.
2. Turn the engine off and wait 15 seconds.
3. Start the engine.

If still comes on and stays on at a speed above 20 km/h (13 mph), see your dealer for service.

A chime may also sound when the light comes on steady.

Notice: **Do not repeatedly brake or accelerate heavily when TCS is off. The vehicle's driveline could be damaged.**



TCS/StabiliTrak Button

is on the center stack.



TCS Off Light

TCS can be turned off by pressing and releasing . When TCS is turned off, comes on and the system will not limit wheel spin. The appropriate message will display in

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the Driver Information Center (DIC). Driving should be adjusted accordingly. Press and release OFF again to turn the system back on.

It may be necessary to turn the system off if the vehicle gets stuck in sand, mud, or snow and rocking the vehicle is required. See *If the Vehicle Is Stuck on page 9-10* for more information. See also *Winter Driving on page 9-8* for information on using TCS when driving in snowy or icy conditions.

If cruise control is being used when TCS activates, cruise control will automatically disengage. Press the cruise control button to reengage when road conditions allow. See *Cruise Control on page 9-32*.

Adding non-GM accessories can affect the vehicle performance. See *Accessories and Modifications on page 10-2*.

StabiliTrak® System

The vehicle has a vehicle stability enhancement system called StabiliTrak. It is an advanced computer controlled system that assists with directional control of the vehicle in difficult driving conditions.

StabiliTrak activates when the computer senses a difference between the intended path, and the direction the vehicle is actually traveling. StabiliTrak selectively applies braking pressure at any one of the vehicle's brakes to help steer the vehicle in the intended direction.

StabiliTrak is on automatically whenever the vehicle is started. To assist with directional control of the vehicle, the system should always be left on.



TCS/StabiliTrak Light

When the stability control system activates, flashes on in the instrument cluster. This also occurs when traction control is activated. A noise may be heard or vibration may be felt in the brake pedal. This is normal. Continue to steer the vehicle in the intended direction.

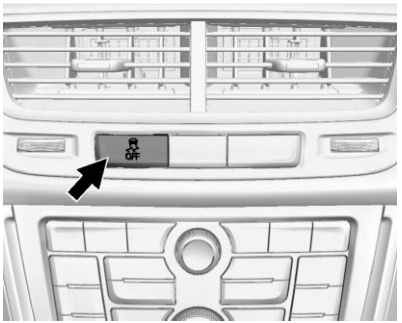
If there is a problem detected with StabiliTrak, comes on and stays on. The vehicle is safe to drive, but the system is not operational. Driving should be adjusted accordingly.

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If comes on and stays on, reset the system:

1. Stop the vehicle.
2. Turn the engine off and wait 15 seconds.
3. Start the engine.

If still comes on and stays on at a speed above 20 km/h (13 mph), see your dealer for service.



TCS/StabiliTrak Button

is on the center stack.



StabiliTrak Off Light



TCS Off Light

StabiliTrak can be turned off if needed by pressing and holding until and come on in the instrument cluster. The appropriate message will display in the DIC. When StabiliTrak is turned off, the system will not assist with directional control of the vehicle or limit wheel spin. TCS will also be turned off. Driving should be adjusted accordingly. Press and release again to turn both systems back on.

StabiliTrak will automatically turn back on when the vehicle speed exceeds 50 km/h (31 mph).

If cruise control is being used when StabiliTrak activates, cruise control will automatically disengage. Press the cruise control button to reengage when road conditions allow. See *Cruise Control on page 9-32*.

Information Provided by: DEALER E-PROCESS

Cruise Control

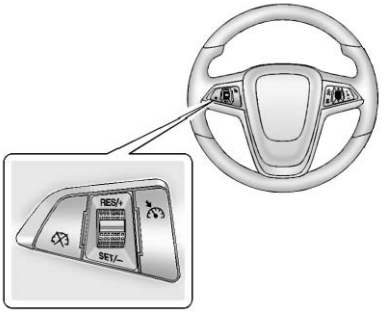
The cruise control lets the vehicle maintain a speed of about 40 km/h (25 mph) or more without keeping your foot on the accelerator. Cruise control does not work at speeds below 40 km/h (25 mph).

The vehicle has a Traction Control System (TCS) or StabiliTrak system that begins to limit wheel spin while using cruise control and the cruise control will automatically disengage. See *Traction Control System (TCS) on page 9-28* or *StabiliTrak® System on page 9-30*. When road conditions allow you to safely use it again, the cruise control can be turned back on.

⚠ WARNING

Cruise control can be dangerous where you cannot drive safely at a steady speed. So, do not use the cruise control on winding roads or in heavy traffic.

Cruise control can be dangerous on slippery roads. On such roads, fast changes in tire traction can cause excessive wheel slip, and you could lose control. Do not use cruise control on slippery roads.



(On/Off): Press the upper or lower portion of the button to turn the cruise control system on or off. An white indicator light will turn on or off in the instrument cluster.

(Cancel): Press to disengage cruise control without erasing the set speed from memory.

RES/+ (Resume/Accel): Move the thumbwheel up to resume to a previously set speed or to accelerate.

Information Provided by: DEALER E-PROCESS

SET/− (Set/Coast): Move the thumbwheel down to set a speed and activate cruise control or to make the vehicle decelerate.

Setting Cruise Control

If the cruise button is on when not in use, it could get bumped and go into cruise when not desired. Keep the cruise control button off when cruise is not being used.

To set a speed:

1. Press to turn cruise control on.
2. Get up to the speed desired.
3. Move the thumbwheel down toward SET/− and release it.
4. Take your foot off the accelerator pedal.

When the cruise control has been set to the desired speed, a green cruise control indicator appears on the instrument cluster.

When the brakes are applied, the cruise control shuts off.

Resuming a Set Speed

If the cruise control is set at a desired speed and then the brakes are applied, the cruise control is disengaged without erasing the set speed from memory. Once the vehicle speed is about 40 km/h (25 mph) or greater, move the thumbwheel up toward RES/+ briefly and then release it. The vehicle returns to the previously set speed and stays there.

Increasing Speed While Using Cruise Control

If the cruise control system is already activated:

- Move the thumbwheel up toward RES/+ and hold it until the vehicle accelerates to the desired speed, then release it.
- To increase the speed in small amounts, move the thumbwheel up toward RES/+ briefly and then release it. Each time this is done, the vehicle goes about 1.6 km/h (1 mph) faster.

Reducing Speed While Using Cruise Control

If the cruise control system is already activated:

- Move the thumbwheel toward SET/− and hold until the desired lower speed is reached, then release it.
- To slow down in very small amounts, move the thumbwheel toward SET/− briefly. Each time this is done, the vehicle goes about 1.6 km/h (1 mph) slower.

Passing Another Vehicle While Using Cruise Control

Use the accelerator pedal to increase vehicle speed. When you take your foot off the pedal, the vehicle will slow down to the previously set cruise control speed.

Using Cruise Control on Hills

How well the cruise control works on hills depends upon the vehicle speed, load, and the steepness of the hills. When going up steep hills,

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you might have to step on the accelerator pedal to maintain the vehicle speed. When going downhill, you might have to brake or shift to a lower gear to maintain the vehicle speed. When the brakes are applied the cruise control is disengaged.

Ending Cruise Control

There are three ways to end cruise control:

- Step lightly on the brake pedal; when cruise control disengages, the indicator light will not be lit.
- Press .
- Press to turn the cruise control system off completely. The cruise control cannot be resumed.

Erasing Speed Memory

The cruise control set speed is erased from memory by pressing or if the vehicle is turned off.

Object Detection Systems

Forward Collision Alert (FCA) System

The Forward Collision Alert (FCA) system may help to avoid or reduce the harm caused by front-end crashes. FCA provides a visual alert and beeps when approaching a vehicle directly ahead too quickly.

The forward-looking FCA camera sensor is on the windshield ahead of the rearview mirror. FCA detects vehicles within a distance of approximately 60 m (197 ft) and operates at speeds above 40 km/h (25 mph).

⚠ WARNING

FCA is a warning system and does not apply the brakes. When approaching a slower-moving or stopped vehicle ahead too rapidly, or when following a vehicle too closely, FCA may not provide a warning with enough time to help avoid a crash. FCA does not warn of pedestrians, animals, signs, guardrails, bridges, construction barrels, or other objects. Be ready to take action and apply the brakes. For more information, see *Defensive Driving on page 9-4*.

Information Provided by: DEALER E-PROCESS

Detecting the Vehicle Ahead



FCA warnings will not occur unless the FCA system detects a vehicle ahead. The vehicle ahead indicator will display green when a vehicle is detected in front. Vehicles may not be detected on curves, highway exit ramps, or hills; or due to poor visibility. FCA will not detect another vehicle ahead until it is completely in the driving lane.

⚠ WARNING

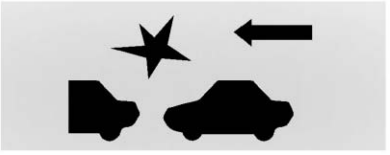
FCA does not provide a warning to help avoid a crash, unless it detects a vehicle. FCA may not detect a vehicle ahead if the FCA sensor is blocked by dirt, snow,

(Continued)

WARNING (Continued)

or ice, or if the windshield is damaged. It may also not detect a vehicle on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlamps or windshield are not cleaned or in proper condition. Keep the windshield, headlamps, and FCA sensors clean and in good repair.

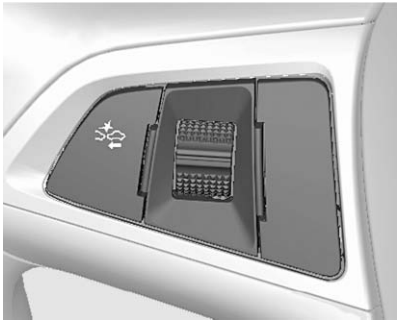
Collision Alert



When your vehicle approaches another vehicle too rapidly, the FCA display will come on and several beeps will sound from the front.

When this occurs, the brake system prepares for driver braking to occur more rapidly, if needed.

Selecting the Alert Timing



The Collision Alert control is on the steering wheel. Press to set the alert timing. The first button press shows the current control setting on the DIC. Additional button presses will change this setting and turn the system off.

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Unnecessary Alerts

FCA may provide unnecessary alerts to turning vehicles, vehicles in other lanes, objects that are not vehicles, or shadows. These alerts are normal operation and the vehicle does not need service.

Other Messages

There are messages that may appear on the Driver Information Center (DIC) in the instrument cluster to provide information about FCA. See *Object Detection System Messages on page 5-28*.

Cleaning the System

If the FCA system does not seem to operate properly, clean the outside of the windshield area in front of the camera sensor before considering taking the vehicle in for service.

Ultrasonic Parking Assist

If available, the Ultrasonic Front and Rear Parking Assist (UFRPA) system, assists the driver with parking and avoiding objects. UFRPA operates at speeds less than 8 km/h (5 mph). The sensors on the front and rear bumper detect objects up to 1.2 m (4 ft) in front of the vehicle, 2.5 m (8 ft) behind the vehicle, and at least 25 cm (10 in) off the ground and below liftgate level. This detection distance may be less during warmer or humid weather.

⚠ WARNING

The parking assist system does not detect children, pedestrians, bicyclists, animals, or objects located below the bumper or that are too close or too far from the vehicle. It is not available at speeds greater than 8 km/h (5 mph). To prevent injury, death, or vehicle damage, even with parking assist, always check the area around the vehicle and check all mirrors before moving forward or backing.

How the System Works

When the vehicle is shifted into R (Reverse) the front and rear sensors are automatically turned on. After the vehicle is shifted out of R (Reverse), the rear sensors are turned off and the front sensors stay on until the vehicle is above a speed of 8 km/h (5 mph). For the front park assist system to be active again without shifting into R (Reverse), the park assist button on the center stack must be pressed. See “Turning the System On and Off” later in this section.

UFRPA operates only at speeds less than 8 km/h (5 mph).

When the vehicle is in N (Neutral), the system may be active. If the vehicle is in a car wash, the sensors may detect objects in the car wash. See “Turning the System On and Off” later in this section to turn the system off.

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High-toned beeps from the front speakers are for objects detected near the front bumper. Low-toned beeps from the rear speakers are for objects detected near the rear bumper. The interval between the beeps becomes shorter as the vehicle gets closer to the obstacle. When the distance is less than 30 cm (12 in) the beeping is a continuous tone for five seconds.

Objects Detected by Both the Front and Rear Sensors

In general, if objects are detected at the same time near both the front and rear bumpers while backing up, the beeps only sound to indicate that objects are close to the rear bumper.

However, if an object comes within 0.3 m (1 ft) of the front bumper while the vehicle is backing up and at the same time there is another object further than 0.3 m (1 ft) from the rear bumper, then the beeps only sound to indicate the front object.

Turning the System On and Off

The UFRPA system can be turned on and off by pressing the park assist button on the center stack.



The indicator on the park assist button lights up when the system is on and turns off when it has been disabled.

When the system is off, PARK ASSIST OFF briefly displays on the Driver Information Center (DIC).

UFRPA defaults to the on setting each time the vehicle is started.

When the System Does Not Seem to Work Properly

The following messages may be displayed on the DIC:

SERVICE PARKING ASSIST: If this message occurs, take the vehicle to your dealer to repair the system.

PARK ASSIST OFF: If the UFRPA system does not activate due to a temporary condition, the message displays on the DIC. This can occur under the following conditions:

- The driver has disabled the system.
- The ultrasonic sensors are not clean. Keep the vehicle's bumpers free of mud, dirt, snow, ice and slush. For cleaning instructions, see *Exterior Care on page 10-67*.
- The park assist sensors are covered by frost or ice. Frost or ice can form around and behind the sensors and may not always be seen; this can occur after

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washing the vehicle in cold weather. The message may not clear until the frost or ice has melted.

- A trailer was attached to the vehicle, or an object was hanging out of the liftgate during the last drive cycle. Once the object is removed, UFRPA will return to normal operation.
- An object or cover is attached to the front of the vehicle.
- A tow bar is attached to the vehicle.
- The bumper is damaged. Take the vehicle to your dealer to repair the system.
- Other conditions, such as vibrations from a jackhammer or the compression of air brakes on a very large truck, are affecting system performance.

Rear Vision Camera (RVC)

The vehicle may have an RVC system. Read this entire section before using it.

The RVC can assist the driver when backing up by displaying a view of the area behind the vehicle.

⚠ WARNING

The RVC system does not display children, pedestrians, bicyclists, animals, or any other object located outside the camera's field of view, below the bumper, or under the vehicle. Perceived distances may be different from actual distances. Do not back the vehicle using only the RVC screen, during longer, higher speed backing maneuvers, or where there could be cross traffic. Failure to use proper care before backing may result in

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WARNING (Continued)

injury, death, or vehicle damage. Always check behind and around the vehicle before backing.

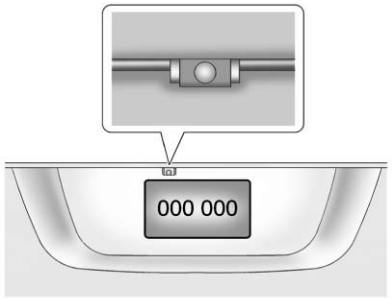
An image appears on the radio screen with the message Check Surroundings for Safety when the vehicle is shifted into R (Reverse). The radio screen goes to the previous screen after approximately 10 seconds once the vehicle is shifted out of R (Reverse).

To see the previous screen sooner, do one of the following:

- Press a hard key on the infotainment system.
- Shift into P (Park).
- Reach a vehicle speed of 8 km/h (5 mph).

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Rear Vision Camera Location

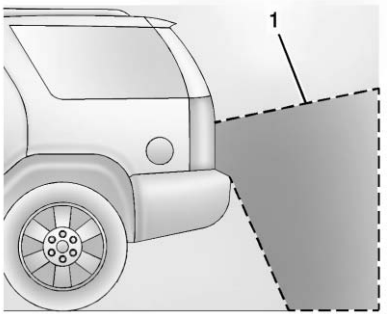


The camera is above the license plate.

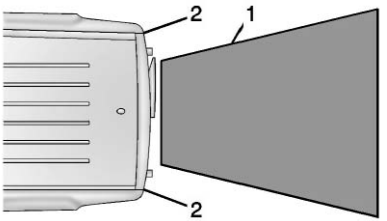
The area displayed by the camera is limited.

It does not display objects that are close to either corner or under the bumper and can vary depending on vehicle orientation or road conditions. The distance of the image that appears on the screen is different from the actual distance.

The following illustrations show the field of view that the camera provides.



1. View displayed by the camera.



1. View displayed by the camera.

2. Corner of the rear bumper.

When the System Does Not Seem To Work Properly

The RVC system may not work properly or display a clear image if:

- The RVC is turned off. See “Turning the Rear Vision Camera System On or Off” earlier in this section.
- It is dark.
- The sun or the beam of headlights is shining directly into the camera lens.
- Ice, snow, mud, or anything else builds up on the camera lens. Clean the lens, rinse it with water, and wipe it with a soft cloth.
- The back of the vehicle is in an accident, the position and mounting angle of the camera can change or the camera can be affected. Be sure to have the

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camera and its position and mounting angle checked at your dealer.

- There are extreme temperature changes.

Lane Departure Warning (LDW)

The vehicle may have an LDW system. Read this entire section before using the system.

LDW may help avoid crashes due to unintentional lane departures. It may provide a warning if the vehicle is crossing a lane without using a turn signal. LDW uses a camera sensor to detect the lane markings. It only operates at speeds of 56 km/h (35 mph) or greater.

When the vehicle crosses a detected lane marking, the LDW indicator will flash and either three beeps will be sounded from the left or right, depending on the lane departure direction. LDW will not warn if the turn signal is on or if a sharp maneuver is made.

⚠ WARNING

The LDW system is an aid to help the vehicle stay in the driving lane. It does not steer the vehicle. The LDW system may not:

- Provide enough time to avoid a crash.
- Detect lane markings under bad weather conditions or if the windshield is dirty.
- Detect lane markings and will not detect road edges.
- Warn that the vehicle is crossing a lane marking if the system does not detect the lane marking.

If LDW only detects lane markings on one side of the road, it will only warn you when

(Continued)

WARNING (Continued)

departing the lane on the side where it has detected a lane marker. Even with LDW, always keep your attention on the road and maintain proper vehicle position within the lane, or vehicle damage, injury, or death could occur. Always keep the windshield clean and do not use LDW in bad weather conditions.

How the System Works

The LDW camera sensor is on the windshield ahead of the rearview mirror.

To turn LDW on and off, press on the center stack, forward of the shift lever. The control indicator will light when LDW is on.

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When the vehicle is started, the LDW indicator will come on briefly.

LDW operates at speeds of 56 km (35 mph) or greater. If LDW is on, the LDW indicator will appear green if the system detects a left or right lane marking. This indicator will change to amber, flash, and sound three beeps if the vehicle crosses a detected lane marking without using the turn signal.

When the System Does Not Seem To Work Properly

If the system is on and the vehicle is traveling 56 km/h (35 mph) or greater, and LDW symbol does not appear:

- The lane markings on the road may not be seen.
- The camera sensor may be blocked by dirt, snow, or ice.
- The windshield may be damaged.
- The weather may be limiting visibility.

This is normal operation; the vehicle does not need service. Clean the windshield.

⚠ WARNING

LDW does not provide a warning to help avoid a crash, unless it detects the lane markings. LDW may not detect the lane markings if the camera sensor is blocked by dirt, snow, or ice, or if the windshield is damaged. It may also not detect a lane on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlamps or windshield are not cleaned or in proper condition. Keep the

(Continued)

WARNING (Continued)

windshield, headlamps, and camera sensors clean and in good repair.

LDW warnings may occasionally occur due to tar marks, shadows, cracks in the road, or other road imperfections. This is normal system operation; the vehicle does not need service.

LDW Messages

SERVICE LANE DEPARTURE WARNING: This message may appear on the DIC to indicate that LDW is not working properly. If this message remains on after continued driving, the system needs service. Take your vehicle to your dealer.

LANE DEPARTURE WARNING UNAVAILABLE: This message may appear in the DIC if LDW does not activate due to a temporary condition.

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Fuel

Use of the recommended fuel is an important part of the proper maintenance of this vehicle. To help keep the engine clean and maintain optimum vehicle performance, we recommend the use of gasoline advertised as TOP TIER Detergent Gasoline.

Look for the TOP TIER label on the fuel pump to ensure gasoline meets enhanced detergency standards developed by auto companies. A list of marketers providing TOP TIER Detergent Gasoline can be found at www.toptiergas.com. TOP TIER gasoline is only available in the U.S. and Canada.





Recommended Fuel

Use regular unleaded gasoline with a posted octane rating of 87 or higher. If the octane rating is less than 87, an audible knocking noise may be heard. If this occurs, use a gasoline rated at 87 octane or higher as soon as possible. If heavy knocking is heard when using a higher octane rated gasoline, the engine needs service.

Prohibited Fuels

Gasolines containing oxygenates, such as ethers and ethanol, as well as reformulated gasolines are available in some cities. If these gasolines comply with the previously described specification, then they are acceptable to use. However, E85 (85% ethanol) and other fuels containing more than 15% ethanol must be used only in flex fuel vehicles.

⚠ CAUTION

Do not use fuel containing methanol. It can corrode metal parts in the fuel system and also damage plastic and rubber parts. That damage would not be covered under the vehicle warranty.

Some gasolines that are not reformulated for low emissions can contain an octane-enhancing additive called

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methylcyclopentadienyl manganese tricarbonyl (MMT). Do not use gasolines with MMT as they can reduce spark plug life and affect emission control system performance. The malfunction indicator lamp may turn on. If this occurs, see your dealer for service.

Gasoline Specifications

At a minimum, gasoline should meet ASTM specification D 4814. Some gasolines contain an octane-enhancing additive called methylcyclopentadienyl manganese tricarbonyl (MMT). We recommend against the use of gasolines containing MMT. See “Prohibited Fuels" in *Recommended Fuel on page 9-42*.

California Fuel Requirements

If the vehicle is certified to meet California Emissions Standards, it is designed to operate on fuels that meet California specifications. See the underhood emission control label. If this fuel is not available in states adopting California Emissions Standards, the vehicle will operate satisfactorily on fuels meeting federal specifications, but emission control system performance might be affected. The malfunction indicator lamp could turn on and the vehicle may not pass a smog-check test. See *Malfunction Indicator Lamp on page 5-14*. If this occurs, return to your authorized dealer for diagnosis. If it is determined that the condition is caused by the type of fuel used, repairs may not be covered by the vehicle warranty.

Fuels in Foreign Countries

If planning to drive in countries outside the U.S. or Canada, the proper fuel might be hard to find. Check regional auto club or fuel retail brand websites for availability in the country where driving. Never use leaded gasoline, fuel containing methanol, or any other fuel not recommended. Costly repairs caused by use of improper fuel would not be covered by the vehicle warranty.

Fuel Additives

To provide cleaner air, all gasolines in the United States are now required to contain additives that help prevent engine and fuel system deposits from forming, allowing the emission control system to work properly. In most cases, nothing should have to be added to the fuel. However, some gasolines contain only the minimum amount of additive required to meet U.S. Environmental Protection Agency regulations. To help keep fuel injectors and intake valves clean and avoid problems due to dirty injectors or valves, look for gasoline that is advertised as TOP TIER Detergent Gasoline. Look for the TOP TIER label on the fuel pump to ensure gasoline meets enhanced detergency standards developed by the auto companies. A list of

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marketers providing TOP TIER Detergent Gasoline can be found at www.toptiergas.com.

For customers who do not use TOP TIER Detergent Gasoline regularly, one bottle of Fuel System Treatment PLUS, part number 88861013, added to the fuel tank at every engine oil change, can help clean deposits from fuel injectors and intake valves. GM Fuel System Treatment PLUS is the only gasoline additive recommended by General Motors. It is available at your dealer.

Gasolines containing oxygenates, such as ethers and ethanol, and reformulated gasolines might be available in your area. We recommend that you use these gasolines, if they comply with the specifications described earlier. However, E85 (85% ethanol) and other fuels containing more than 15% ethanol must not be used in vehicles that were not designed for those fuels.

Notice: **This vehicle was not designed for fuel that contains methanol. Do not use fuel containing methanol. It can corrode metal parts in the fuel system and also damage plastic and rubber parts. That damage would not be covered under the vehicle warranty.**

Some gasolines that are not reformulated for low emissions can contain an octane-enhancing additive called methylcyclopentadienyl manganese tricarbonyl (MMT); ask the attendant where you buy gasoline whether the fuel contains MMT. We recommend against the use of such gasolines. Fuels containing MMT can reduce spark plug life and affect emission control system performance. The malfunction indicator lamp might turn on. If this occurs, return to your dealer for service.

Filling the Tank

⚠ WARNING

Fuel vapors and fuel fires burn violently and can cause injury or death.

- To help avoid injuries to you and others, read and follow all the instructions on the fuel pump island.
- Turn off the engine when refueling.
- Keep sparks, flames, and smoking materials away from fuel.
- Do not leave the fuel pump unattended.
- Do not reenter the vehicle while pumping fuel.
- Keep children away from the fuel pump and never let children pump fuel.

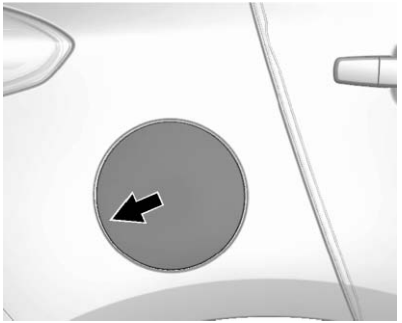
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Information Provided by: DEALER E-PROCESS

WARNING (Continued)

- Fuel can spray out if the fuel cap is opened too quickly. This spray can happen if the tank is nearly full, and is more likely in hot weather. Open the fuel cap slowly and wait for any hiss noise to stop then unscrew the cap all the way

The tethered fuel cap is behind a hinged fuel door on the right rear side of the vehicle. If equipped, the fuel door is locked when the vehicle doors are locked. Press on the RKE to unlock.



To open the fuel door, push the rearward center edge in and release and it will open.

To remove the fuel cap, turn it slowly counterclockwise. The fuel cap has a spring in it; if the cap is released too soon, it will spring back to the right.

While refueling, hang the tethered fuel cap from the hook on the fuel door.

Be careful not to spill fuel. Do not top off or overfill the tank and wait a few seconds after you have finished pumping before removing the nozzle. Clean fuel from painted surfaces as soon as possible. See *Exterior Care on page 10-67*.

When replacing the fuel cap, turn it clockwise until it clicks. Make sure the cap is fully installed. The diagnostic system can determine if the fuel cap has been left off or improperly installed. This would allow fuel to evaporate into the atmosphere. See *Malfunction Indicator Lamp on page 5-14*.

Information Provided by: DEALER E-PROCESS

⚠ WARNING

If a fire starts while you are refueling, do not remove the nozzle. Shut off the flow of fuel by shutting off the pump or by notifying the station attendant. Leave the area immediately.

Notice: **If a new fuel cap is needed, be sure to get the right type of cap from your dealer. The wrong type of fuel cap might not fit properly, might cause the malfunction indicator lamp to light, and could damage the fuel tank and emissions system. See *Malfunction Indicator Lamp on page 5-14*.**

Filling a Portable Fuel Container

⚠ WARNING

Filling a portable fuel container while it is in the vehicle can cause fuel vapors that can ignite either by static electricity or other means. You or others could be badly burned and the vehicle could be damaged. Always:

- Use approved fuel containers.
- Remove the container from the vehicle, trunk, or pickup bed before filling.
- Place the container on the ground.

(Continued)

WARNING (Continued)

- Place the nozzle inside the fill opening of the container before dispensing fuel, and keep it in contact with the fill opening until filling is complete.
- Fill the container no more than 95% full to allow for expansion.
- Do not smoke, light matches, or use lighters while pumping fuel.
- Avoid using cell phones or other electronic devices.

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Towing

General Towing Information

The vehicle is neither designed nor intended to tow a trailer.

Conversions and Add-Ons

Add-On Electrical Equipment

Notice: **Some electrical equipment can damage the vehicle or cause components to not work and would not be covered by the warranty. Always check with your dealer before adding electrical equipment.**

Add-on equipment can drain the vehicle's 12-volt battery, even if the vehicle is not operating.

The vehicle has an airbag system. Before attempting to add anything electrical to the vehicle, see *Servicing the Airbag-Equipped Vehicle on page 3-33* and *Adding Equipment to the Airbag-Equipped Vehicle on page 3-34*.

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✍ NOTES

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Vehicle Care

General Information

General Information 10-2
California Proposition 65 Warning 10-2
California Perchlorate Materials Requirements 10-2
Accessories and Modifications 10-2

Vehicle Checks

Doing Your Own Service Work 10-3
Hood 10-4
Engine Compartment Overview 10-6
Engine Oil 10-7
Engine Oil Life System 10-9
Automatic Transmission Fluid 10-10
Engine Air Cleaner/Filter 10-10
Cooling System 10-11
Engine Coolant 10-12
Engine Overheating 10-15
Washer Fluid 10-16
Brakes 10-17
Brake Fluid 10-18
Battery 10-19
All-Wheel Drive 10-20
Starter Switch Check 10-20
Automatic Transmission Shift Lock Control Function Check 10-20
Ignition Transmission Lock Check 10-21
Park Brake and P (Park) Mechanism Check 10-21
Wiper Blade Replacement 10-21

Headlamp Aiming

Headlamp Aiming 10-23

Bulb Replacement

Bulb Replacement 10-23
Halogen Bulbs 10-23
Headlamps, Front Turn Signal and Parking Lamps 10-24
License Plate Lamp 10-26
Replacement Bulbs 10-26

Electrical System

Electrical System Overload 10-27
Fuses and Circuit Breakers 10-27
Engine Compartment Fuse Block 10-28
Instrument Panel Fuse Block 10-31
Rear Compartment Fuse Block 10-33

Wheels and Tires

Tires 10-35
All-Season Tires 10-36
Winter Tires 10-36
Summer Tires 10-36
Tire Sidewall Labeling 10-37
Tire Designations 10-39
Tire Terminology and Definitions 10-39
Tire Pressure 10-42
Tire Pressure Monitor System 10-43
Tire Pressure Monitor Operation 10-44
Tire Inspection 10-48
Tire Rotation 10-48
When It Is Time for New Tires 10-49
Buying New Tires 10-50
Different Size Tires and Wheels 10-52

Information Provided by DEALER E-PROCESS

Uniform Tire Quality Grading 10-52
Wheel Alignment and Tire Balance 10-54
Wheel Replacement 10-54
Tire Chains 10-55
If a Tire Goes Flat 10-55
Tire Changing 10-57
Compact Spare Tire 10-61

Jump Starting
Jump Starting 10-61

Towing
Towing the Vehicle 10-64
Recreational Vehicle Towing 10-64

Appearance Care
Exterior Care 10-67
Interior Care 10-70
Floor Mats 10-73

General Information

For service and parts needs, visit your dealer. You will receive genuine GM parts and GM-trained and supported service people.

Genuine GM parts have one of these marks:

ACDelco

Genuine GM | Parts

GM Accessories

California Proposition 65 Warning

Most motor vehicles, including this one, contain and/or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Engine exhaust, many parts and systems, many fluids, and some component wear by-products contain and/or emit these chemicals.

California Perchlorate Materials Requirements

Certain types of automotive applications, such as airbag initiators, safety belt pretensioners, and lithium batteries contained in Remote Keyless Entry transmitters, may contain perchlorate materials. Special handling may be necessary. For additional information, see www.dtsc.ca.gov/hazardouswaste/perchlorate.

Accessories and Modifications

Adding non-dealer accessories or making modifications to the vehicle can affect vehicle performance and safety, including such things as airbags, braking, stability, ride and

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handling, emissions systems, aerodynamics, durability, and electronic systems like antilock brakes, traction control, and stability control. These accessories or modifications could even cause malfunction or damage not covered by the vehicle warranty.

Damage to vehicle components resulting from modifications or the installation or use of non-GM certified parts, including control module or software modifications, is not covered under the terms of the vehicle warranty and may affect remaining warranty coverage for affected parts.

GM Accessories are designed to complement and function with other systems on the vehicle. See your dealer to accessorize the vehicle using genuine GM Accessories installed by a dealer technician.

Also, see *Adding Equipment to the Airbag-Equipped Vehicle on page 3-34*.

Vehicle Checks

Doing Your Own Service Work

⚠ WARNING

It can be dangerous to work on your vehicle if you do not have the proper knowledge, service manual, tools, or parts. Always follow owner manual procedures and consult the service manual for your vehicle before doing any service work.

If doing some of your own service work, use the proper service manual. It tells you much more about how to service the vehicle than this manual can. To order the proper service manual, see *Service Publications Ordering Information on page 13-16*.

This vehicle has an airbag system. Before attempting to do your own service work, see *Servicing the Airbag-Equipped Vehicle on page 3-33*.

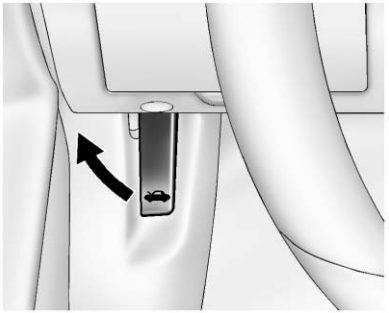
Keep a record with all parts receipts and list the mileage and the date of any service work performed. See *Maintenance Records on page 11-13*.

Notice: **Even small amounts of contamination can cause damage to vehicle systems. Do not allow contaminants to contact the fluids, reservoir caps, or dipsticks.**

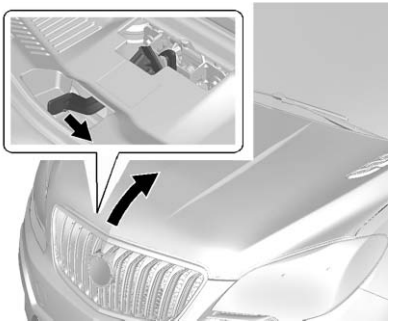
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Hood

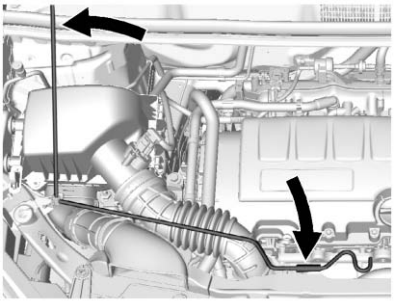
To open the hood:



1. Pull the hood release handle inside the vehicle. It is located on the lower left side of the instrument panel.



2. Go to the front of the vehicle and move the secondary hood release lever toward the right side of the vehicle.



3. Lift the hood and release the hood prop from its retainer, above the radiator. Securely place the hood prop into the slot on the underside of the hood.

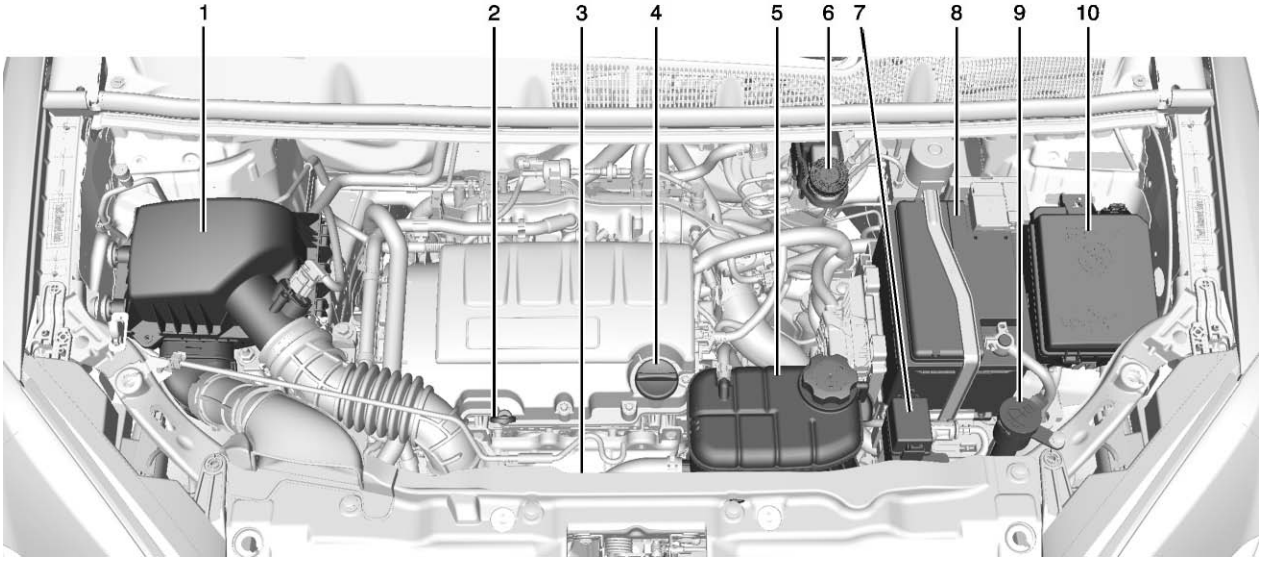
Information Provided by:
DEALER E-PROCESS

To close the hood:

1. Before closing the hood, be sure all filler caps are on properly. Then, lift the hood to relieve pressure on the hood prop. Remove the hood prop from the slot in the underside of the hood and return the prop to its retainer. The prop rod must click into place when returning it to the retainer to prevent hood damage.
2. Lower the hood 30 cm (12 in) above the vehicle and release it so it fully latches. Check to make sure the hood is closed and repeat the process if necessary.

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Engine Compartment Overview



Information Provided by:
DEALER
E-PROCESS

1. *Engine Air Cleaner/Filter on page 10-10*.
2. Engine Oil Dipstick. See *Engine Oil on page 10-7*.
3. Engine Cooling Fan (Out of View). See *Cooling System on page 10-11*.
4. Engine Oil Fill Cap. See *Engine Oil on page 10-7*.
5. Engine Coolant Surge Tank and Pressure Cap. See *Cooling System on page 10-11*.
6. Brake Fluid Reservoir. See *Brakes on page 10-17*.
7. Auxiliary Fuse Block. See *Engine Compartment Fuse Block on page 10-28*.
8. *Battery on page 10-19*.
9. Windshield Washer Fluid Reservoir. See *Washer Fluid on page 10-16*.
10. *Engine Compartment Fuse Block on page 10-28*.

Engine Oil

To ensure proper engine performance and long life, careful attention must be paid to engine oil. Following these simple, but important steps will help protect your investment:

- Always use engine oil approved to the proper specification and of the proper viscosity grade. See “Selecting the Right Engine Oil” in this section.
- Check the engine oil level regularly and maintain the proper oil level. See “Checking Engine Oil” and “When to Add Engine Oil” in this section.
- Change the engine oil at the appropriate time. See *Engine Oil Life System on page 10-9*.
- Always dispose of engine oil properly. See “What to Do with Used Oil” in this section.

Checking Engine Oil

It is a good idea to check the engine oil level at each fuel fill. In order to get an accurate reading, the vehicle must be on level ground. The engine oil dipstick handle is a loop. See *Engine Compartment Overview on page 10-6* for the location of the engine oil dipstick.

Obtaining an accurate oil level reading is essential:

1. If the engine has been running recently, turn off the engine and allow several minutes for the oil to drain back into the oil pan. Checking the oil level too soon after engine shutoff will not provide an accurate oil level reading.

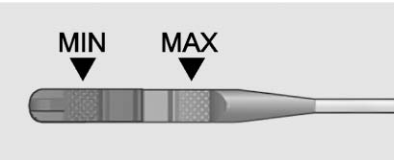
⚠ WARNING

The engine oil dipstick handle may be hot; it could burn you. Use a towel or glove to touch the dipstick handle.

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2. Pull out the dipstick and clean it with a paper towel or cloth, then push it back in all the way. Remove it again, keeping the tip down, and check the level.

When to Add Engine Oil



If the oil is below the MIN mark on the dipstick, add 1 L (1 qt) of the recommended oil and then recheck the level. See “Selecting the Right Engine Oil” in this section for an explanation of what kind of oil to use. For engine oil crankcase capacity, see *Capacities and Specifications on page 12-2*.

Notice: **Do not add too much oil. Oil levels above or below the acceptable operating range shown on the dipstick are harmful to the engine. If you find that you have an oil level above the operating range, i.e., the engine has so much oil that the oil level gets above the MAX mark, the engine could be damaged. You should drain out the excess oil or limit driving of the vehicle and seek a service professional to remove the excess amount of oil.**

See *Engine Compartment Overview on page 10-6* for the location of the engine oil fill cap.

Add enough oil to put the level somewhere in the proper operating range between the MIN and MAX marks. Push the dipstick all the way back in when through.

Selecting the Right Engine Oil

Selecting the right engine oil depends on both the proper oil specification and viscosity grade. See *Recommended Fluids and Lubricants on page 11-11*.

Specification

Use and ask for licensed engine oils with the dexos1® approved certification mark. Engine oils meeting the requirements for the vehicle should have the dexos1 approved certification mark. This certification mark indicates that the oil has been approved to the dexos1 specification.

Notice: **Failure to use the recommended engine oil or equivalent can result in engine damage not covered by the vehicle warranty. Check with your dealer or service provider on whether the oil is approved to the dexos1 specification.**

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Viscosity Grade

SAE 5W-30 is the best viscosity grade for the vehicle. Do not use other viscosity grade oils such as SAE 10W-30, 10W-40, or 20W-50.

Cold Temperature Operation: In an area of extreme cold, where the temperature falls below −29°C (−20°F), an SAE 0W-30 oil may be used. An oil of this viscosity grade will provide easier cold starting for the engine at extremely low temperatures. When selecting an oil of the appropriate viscosity grade, always select an oil of the correct specification. See “Specification” earlier in this section for more information.

Engine Oil Additives/Engine Oil Flushes

Do not add anything to the oil. The recommended oils with the dexos specification and displaying the dexos certification mark are all that is needed for good performance and engine protection.

Engine oil system flushes are not recommended and could cause engine damage not covered by the vehicle warranty.

What to Do with Used Oil

Used engine oil contains certain elements that can be unhealthy for your skin and could even cause cancer. Do not let used oil stay on your skin for very long. Clean your skin and nails with soap and water, or a good hand cleaner. Wash or properly dispose of clothing or rags containing used engine oil. See the manufacturer's warnings about the use and disposal of oil products.

Used oil can be a threat to the environment. If you change your own oil, be sure to drain all the oil from the filter before disposal. Never dispose of oil by putting it in the trash or pouring it on the ground, into sewers, or into streams or bodies of water. Recycle it by taking it to a place that collects used oil.

Engine Oil Life System

When to Change Engine Oil

This vehicle has a computer system that indicates when to change the engine oil and filter. This is based on a combination of factors which include engine revolutions, engine temperature, and miles driven. Based on driving conditions, the mileage at which an oil change is indicated can vary considerably. For the oil life system to work properly, the system must be reset every time the oil is changed.

When the system has calculated that oil life has been diminished, it indicates that an oil change is necessary. A CHANGE ENGINE OIL SOON DIC message comes on. See *Vehicle Messages on page 5-25*. Change the oil as soon as possible within the next 1 000 km (600 mi). It is possible that, if driving under the best conditions, the oil life system might indicate that an oil change is not necessary for up to a year. The engine oil and filter must

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be changed at least once a year and, at this time, the system must be reset. Your dealer has trained service people who will perform this work and reset the system. It is also important to check the oil regularly over the course of an oil drain interval and keep it at the proper level.

If the system is ever reset accidentally, the oil must be changed at 5 000 km (3,000 mi) since the last oil change. Remember to reset the oil life system whenever the oil is changed.

How to Reset the Engine Oil Life System

Reset the system whenever the engine oil is changed so that the system can calculate the next engine oil change. To reset the system:

1. Press the MENU button to show Remaining Oil Life on the display. This display shows an estimate of the oil's remaining useful life. If 99% is displayed, that means that 99% of the current oil life remains.
2. To reset the engine oil life system, press the SET/CLR button while the oil life display is active. After a few seconds, there will be a single chime and the oil life will be reset to 100%.

Be careful not to reset the oil life display accidentally at any time other than after the oil is changed. It cannot be reset accurately.

If the CHANGE ENGINE OIL SOON DIC message comes back on when the vehicle is started, the engine oil life system has not reset. Repeat the procedure.

Automatic Transmission Fluid

How to Check Automatic Transmission Fluid

It is not necessary to check the transmission fluid level.
A transmission fluid leak is the only reason for fluid loss. If a leak occurs, take the vehicle to your dealer and have it repaired as soon as possible.

There is a special procedure for checking and changing the transmission fluid. Because this procedure is difficult, you should have this done at your dealer.

Change the fluid and filter at the intervals listed in *Maintenance Schedule on page 11-3*, and be sure to use the fluid listed in *Recommended Fluids and Lubricants on page 11-11*.

Engine Air Cleaner/Filter

The engine air cleaner/filter is in the engine compartment on the passenger side of the vehicle. See *Engine Compartment Overview on page 10-6* for more information on location.

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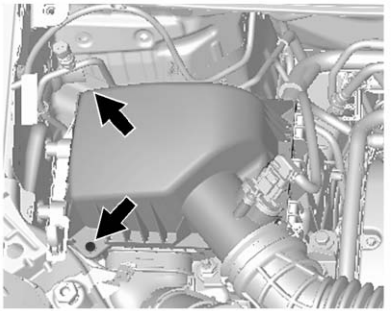
When to Inspect the Engine Air Cleaner/Filter

Inspect the air cleaner/filter at the scheduled maintenance intervals. See *Maintenance Schedule on page 11-3*. If you are driving in dusty/dirty conditions, inspect the filter at each engine oil change.

How to Inspect the Engine Air Cleaner/Filter

To inspect the engine air cleaner/filter, remove the filter from the vehicle and lightly shake the filter to release loose dust and dirt. If the filter remains covered with dirt, a new filter is required.

To inspect or replace the air cleaner/filter:



1. Remove the two screws, tilt the cover, and slide it out of the assembly.
2. Inspect or replace the engine air cleaner/filter.
3. Lower the cover, slide it into the assembly, then secure with the two screws.

See *Maintenance Schedule on page 11-3* for replacement intervals.

⚠ WARNING

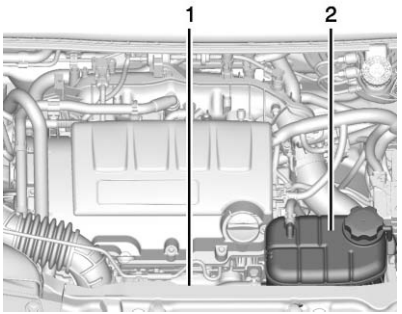
Operating the engine with the air cleaner/filter off can cause you or others to be burned. The air cleaner not only cleans the air; it helps to stop flames if the engine backfires. Use caution when working on the engine and do not drive with the air cleaner/filter off.

Notice: **If the air cleaner/filter is off, dirt can easily get into the engine, which could damage it. Always have the air cleaner/filter in place when you are driving.**

Cooling System

The cooling system allows the engine to maintain the correct working temperature.

Information Provided by: DEALER E-PROCESS



1. Engine Cooling Fan (Out of View)
2. Engine Coolant Surge Tank and Pressure Cap

⚠ WARNING

An electric engine cooling fan under the hood can start up even when the engine is not running and can cause injury. Keep hands, clothing, and tools away from any underhood electric fan.

⚠ WARNING

Heater and radiator hoses, and other engine parts, can be very hot. Do not touch them. If you do, you can be burned.

Do not run the engine if there is a leak. If you run the engine, it could lose all coolant. That could cause an engine fire, and you could be burned. Get any leak fixed before you drive the vehicle.

Notice: **Using coolant other than DEX-COOL® can cause premature engine, heater core, or radiator corrosion. In addition, the engine coolant may require changing sooner, at the first maintenance service after each 30,000 miles (50 000 km) or 24 months, whichever occurs first. Any repairs would not be covered by the vehicle warranty. Always use DEX-COOL® (silicate-free) coolant in the vehicle.**

Engine Coolant

The cooling system in the vehicle is filled with DEX-COOL engine coolant. This coolant is designed to remain in the vehicle for 5 years or 240 000 km (150,000 mi), whichever occurs first.

The following explains the cooling system and how to check and add coolant when it is low. If there is a problem with engine overheating, see *Engine Overheating on page 10-15*.

What to Use

⚠ WARNING

Adding only plain water or some other liquid to the cooling system can be dangerous. Plain water and other liquids, can boil before the proper coolant mixture will. The coolant warning system is set for the proper coolant mixture. With plain water or the wrong

(Continued)

Information Provided by: DEALER E-PROCESS

WARNING (Continued)

mixture, the engine could get too hot but you would not get the overheat warning. The engine could catch fire and you or others could be burned. Use a 50/50 mixture of clean, drinkable water and DEX-COOL coolant.

Use a 50/50 mixture of clean drinkable water and DEX-COOL coolant. This mixture:

- Gives freezing protection down to −37°C (−34°F), outside temperature.
- Gives boiling protection up to 129°C (265°F), engine temperature.
- Protects against rust and corrosion.
- Will not damage aluminum parts.
- Helps keep the proper engine temperature.

Notice: **If improper coolant mixture, inhibitors, or additives are used in the vehicle cooling system, the engine could overheat and be damaged. Too much water in the mixture can freeze and crack engine cooling parts. The repairs would not be covered by the warranty. Use only the proper mixture of engine coolant for the cooling system. See *Recommended Fluids and Lubricants on page 11-11*.**

Never dispose of engine coolant by putting it in the trash, pouring it on the ground, or into sewers, streams, or bodies of water. Have the coolant changed by an authorized service center, familiar with legal requirements regarding used coolant disposal. This will help protect the environment and your health.

Checking Coolant

The vehicle must be on a level surface when checking the coolant level.

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It is normal to see coolant moving in the upper coolant hose return line when the engine is running.

Check to see if coolant is visible in the coolant surge tank. If the coolant inside the coolant surge tank is boiling, do not do anything else until it cools down.

If coolant is visible but the coolant level is not at or above the mark pointed to, add a 50/50 mixture of clean drinkable water and DEX-COOL coolant.

Be sure the cooling system is cool before this is done.

If no coolant is visible in the coolant surge tank, add coolant as follows:

How to Add Coolant to the Coolant Surge Tank

Notice: **This vehicle has a specific coolant fill procedure. Failure to follow this procedure could cause the engine to overheat and be severely damaged.**

If no problem is found, check to see if coolant is visible in the coolant surge tank. If coolant is visible but the coolant level is not at the indicated level mark, add a 50/50 mixture of clean, drinkable water and DEX-COOL coolant at the coolant surge tank, but be sure the cooling system, including the coolant surge tank pressure cap, is cool before you do it.

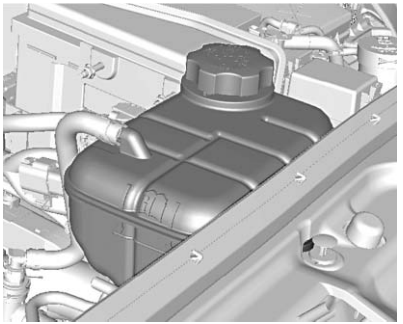
⚠ WARNING

Steam and scalding liquids from a hot cooling system can blow out and burn you badly. Never turn the cap when the cooling system, including the surge tank pressure cap, is hot. Wait for the cooling system and surge tank pressure cap to cool.

Notice: **In cold weather, water can freeze and crack the engine, radiator, heater core and other parts. Use the recommended coolant and the proper coolant mixture.**

⚠ WARNING

You can be burned if you spill coolant on hot engine parts. Coolant contains ethylene glycol and it will burn if the engine parts are hot enough. Do not spill coolant on a hot engine.



1. Remove the coolant surge tank pressure cap when the cooling system, including the coolant surge tank pressure cap and upper radiator hose, is no longer hot.

   Turn the pressure cap slowly counterclockwise about one-quarter of a turn. If you hear a hiss, wait for that to stop. This will allow any pressure still left to be vented out the discharge hose.
2. Keep turning the pressure cap slowly and remove it.
3. Fill the coolant surge tank with the proper DEX-COOL coolant mixture to the indicated level mark.

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4. With the coolant surge tank pressure cap off, start the engine and let it run until you can feel the upper radiator hose getting hot. Watch out for the engine cooling fan.

   By this time, the coolant level inside the coolant surge tank may be lower. If the level is lower, add more of the proper DEX-COOL coolant mixture to the coolant surge tank until the level reaches the indicated level mark.

5. Replace the pressure cap. Be sure the pressure cap is hand-tight.

Check the level in the coolant surge tank when the cooling system has cooled down. If the coolant is not at the proper level, repeat Steps 1–3 and reinstall the pressure cap. If the coolant still is not at the proper level when the system cools down again, see your dealer.

Engine Overheating

The vehicle has an indicator to warn of the engine overheating. See *Engine Coolant Temperature Warning Light on page 5-19*.

If the decision is made not to lift the hood when this warning appears, get service help right away. See *Roadside Assistance Program (Mexico) on page 13-7* or *Roadside Assistance Program (U.S. and Canada) on page 13-11*.

If the decision is made to lift the hood, make sure the vehicle is parked on a level surface.

Then check to see if the engine cooling fan is running. If the engine is overheating, the fan should be running. If it is not, do not continue to run the engine. Have the vehicle serviced.

Notice: **Running the engine without coolant may cause damage or a fire. Vehicle damage would not be covered by the warranty.**

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If Steam Is Coming from the Engine Compartment

⚠ WARNING

Steam from an overheated engine can burn you badly, even if you just open the hood. Stay away from the engine if you see or hear steam coming from it. Just turn it off and get everyone away from the vehicle until it cools down. Wait until there is no sign of steam or coolant before you open the hood.

If you keep driving when the engine is overheated, the liquids in it can catch fire. You or others could be badly burned. Stop the engine if it overheats, and get out of the vehicle until the engine is cool.

If No Steam Is Coming from the Engine Compartment

If an engine overheat warning is displayed but no steam can be seen or heard, the problem may not be too serious. Sometimes the engine can get a little too hot when the vehicle:

- Climbs a long hill on a hot day.
- Stops after high-speed driving.
- Idles for long periods in traffic.

If the overheat warning is displayed with no sign of steam:

1. Turn the air conditioning off.
2. Turn the heater on to the highest temperature and to the highest fan speed. Open the windows as necessary.
3. In heavy traffic, let the engine idle in N (Neutral) while stopped. If it is safe to do so, pull off the road, shift to P (Park) or N (Neutral), and let the engine idle.

If the overheat warning no longer displays, the vehicle can be driven. Continue to drive the vehicle slowly for about 10 minutes. Keep a safe vehicle distance from the vehicle in front. If the warning does not come back on, continue to drive normally.

If the warning continues, pull over, stop, and park the vehicle right away.

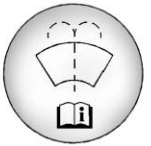
If there is no sign of steam, idle the engine for three minutes while parked. If the warning is still displayed, turn off the engine until it cools down.

Washer Fluid

What to Use

When the vehicle needs windshield washer fluid, be sure to read the manufacturer's instructions before use. If operating the vehicle in an area where the temperature may fall below freezing, use a fluid that has sufficient protection against freezing.

Adding Washer Fluid



Open the cap with the washer symbol on it. Add washer fluid until the tank is full. See *Engine Compartment Overview on page 10-6* for reservoir location.

Notice

- **When using concentrated washer fluid, follow the manufacturer instructions for adding water.**
- **Do not mix water with ready-to-use washer fluid. Water can cause the solution to freeze and damage the washer fluid tank and other parts of the washer system.**

Information Provided by: DEALER E-PROCESS

- **Fill the washer fluid tank only three-quarters full when it is very cold. This allows for fluid expansion if freezing occurs, which could damage the tank if it is completely full.**
- **Do not use engine coolant (antifreeze) in the windshield washer. It can damage the windshield washer system and paint.**

Brakes

This vehicle has disc brakes. Disc brake pads have built-in wear indicators that make a high-pitched warning sound when the brake pads are worn and new pads are needed. The sound can come and go or be heard all the time the vehicle is moving, except when applying the brake pedal firmly.

⚠ WARNING

The brake wear warning sound means that soon the brakes will not work well. That could lead to a crash. When the brake wear warning sound is heard, have the vehicle serviced.

Notice: **Continuing to drive with worn-out brake pads could result in costly brake repair.**

Some driving conditions or climates can cause a brake squeal when the brakes are first applied or lightly applied. This does not mean something is wrong with the brakes.

Properly torqued wheel nuts are necessary to help prevent brake pulsation. When tires are rotated, inspect brake pads for wear and evenly tighten wheel nuts in the proper sequence to torque specifications in *Capacities and Specifications on page 12-2*.

Brake linings should always be replaced as complete axle sets.

Brake Pedal Travel

See your dealer if the brake pedal does not return to normal height, or if there is a rapid increase in pedal travel. This could be a sign that brake service might be required.

Brake Adjustment

Every time the brakes are applied, with or without the vehicle moving, the brakes adjust for wear.

Replacing Brake System Parts

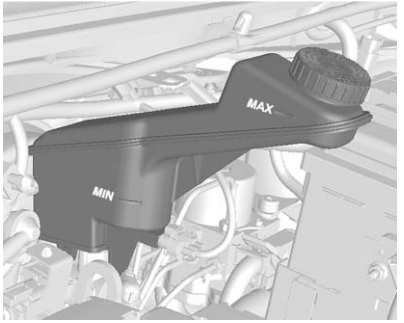
The braking system on a vehicle is complex. Its many parts have to be of top quality and work well together if the vehicle is to have really good braking. The vehicle was designed and tested with top-quality brake parts. When parts of the braking system are replaced, be sure to get new, approved replacement parts.

Information Provided by: DEALER E-PROCESS

If this is not done, the brakes might not work properly. For example, installing disc brake pads that are wrong for the vehicle, can change the balance between the front and rear brakes — for the worse. The braking performance expected can change in many other ways if the wrong replacement brake parts are installed.

Brake Fluid

The brake master cylinder reservoir is filled with DOT 4 brake fluid as indicated on the reservoir cap. See *Engine Compartment Overview on page 10-6* for the location of the reservoir. The fluid level must be between the MIN and MAX marks.



There are only two reasons why the fluid level in the reservoir might go down:

- The fluid level goes down because of normal brake lining wear. When new linings are installed, the fluid level goes back up.
- A fluid leak in the brake hydraulic system can also cause a low fluid level. Have the brake hydraulic system fixed, since a leak means that sooner or later the brakes will not work well.

Do not top off the brake fluid. Adding fluid does not correct a leak. If fluid is added when the linings are worn, there will be too much fluid when new brake linings are installed. Add or remove fluid, as necessary, only when work is done on the brake hydraulic system.

⚠ WARNING

If too much brake fluid is added, it can spill on the engine and burn, if the engine is hot enough. You or others could be burned, and the vehicle could be damaged. Add brake fluid only when work is done on the brake hydraulic system.

When the brake fluid falls to a low level, the brake warning light comes on. See *Brake System Warning Light on page 5-16*.

Information Provided by:
DEALER E-PROCESS

What to Add

Use only new DOT 4 brake fluid from a sealed container. It is recommended that the brake hydraulic system be flushed and refilled with new DOT 4 fluid at a regular maintenance interval every two years. See *Recommended Fluids and Lubricants on page 11-11*.

Always clean the brake fluid reservoir cap and the area around the cap before removing it. This helps keep dirt from entering the reservoir.

⚠ WARNING

With the wrong kind of fluid in the brake hydraulic system, the brakes might not work well. This could cause a crash. Always use the proper brake fluid.

Notice

- **Using the wrong fluid can badly damage brake hydraulic system parts. For example, just a few drops of mineral-based oil, such as engine oil, in the brake hydraulic system can damage brake hydraulic system parts so badly that they will have to be replaced. Do not let someone put in the wrong kind of fluid.**
- **If brake fluid is spilled on the vehicle's painted surfaces, the paint finish can be damaged. Be careful not to spill brake fluid on the vehicle. If you do, wash it off immediately.**

Battery

Refer to the replacement number on the original battery label when a new battery is needed.

⚠ WARNING

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

Vehicle Storage

⚠ WARNING

Batteries have acid that can burn you and gas that can explode. You can be badly hurt if you are not careful. See *Jump Starting on page 10-61* for tips on working around a battery without getting hurt.

Infrequent Usage: Remove the black, negative (−) cable from the battery to keep the battery from running down.

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Extended Storage: Remove the black, negative (−) cable from the battery or use a battery trickle charger.

All-Wheel Drive

Transfer Case

Under normal driving conditions, transfer case fluid does not require changing or checking unless there is a fluid leak or unusual noise. If required, have the transfer case serviced by your dealer.

Starter Switch Check

⚠ WARNING

When you are doing this inspection, the vehicle could move suddenly. If the vehicle moves, you or others could be injured.

1. Before starting this check, be sure there is enough room around the vehicle.
2. Firmly apply both the parking brake and the regular brake. See *Parking Brake on page 9-27*.

   Do not use the accelerator pedal, and be ready to turn off the engine immediately if it starts.
3. Try to start the engine in each gear. The vehicle should start only in P (Park) or N (Neutral). If the vehicle starts in any other position, contact your dealer for service.

Automatic Transmission Shift Lock Control Function Check

⚠ WARNING

When you are doing this inspection, the vehicle could move suddenly. If the vehicle moves, you or others could be injured.

1. Before starting this check, be sure there is enough room around the vehicle. It should be parked on a level surface.
2. Firmly apply the parking brake. See *Parking Brake on page 9-27*.

   Be ready to apply the regular brake immediately if the vehicle begins to move.

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3. With the engine off, turn the ignition on, but do not start the engine. Without applying the regular brake, try to move the shift lever out of P (Park) with normal effort. If the shift lever moves out of P (Park), contact your dealer for service.

Ignition Transmission Lock Check

While parked, and with the parking brake set, try to turn the ignition to LOCK/OFF in each shift lever position.

- The ignition should turn to LOCK/OFF only when the shift lever is in P (Park).
- The ignition key should come out only in LOCK/OFF.

Contact your dealer if service is required.

Park Brake and P (Park) Mechanism Check

⚠ WARNING

When you are doing this check, the vehicle could begin to move. You or others could be injured and property could be damaged. Make sure there is room in front of the vehicle in case it begins to roll. Be ready to apply the regular brake at once should the vehicle begin to move.

Park on a fairly steep hill, with the vehicle facing downhill. Keeping your foot on the regular brake, set the parking brake.

- To check the parking brake's holding ability: With the engine running and the transmission in N (Neutral), slowly remove foot pressure from the regular brake pedal. Do this until the vehicle is held by the parking brake only.
- To check the P (Park) mechanism's holding ability: With the engine running, shift to P (Park). Then release the parking brake followed by the regular brake.

Contact your dealer if service is required.

Wiper Blade Replacement

Windshield wiper blades should be inspected for wear and cracking. See *Maintenance Schedule on page 11-3*.

Replacement blades come in different types and are removed in different ways. For proper type and length, see *Maintenance Replacement Parts on page 11-12*.

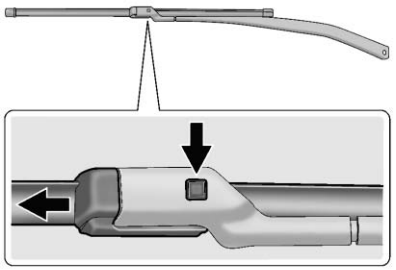
Notice: **Allowing the wiper arm to touch the windshield when no wiper blade is installed could damage the windshield. Any damage that occurs would not be covered by your warranty. Do not allow the wiper arm to touch the windshield.**

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Front Wiper Blade Replacement

To replace the front wiper blades:

1. Lift the wiper arm from the windshield until no further movement is possible.



2. Press the release button on the top side of the wiper and pull the wiper blade out of the end of the wiper arm.
3. Install the wiper blade connector by sliding into the end of the wiper arm until the button on the wiper blade clicks into place with the wiper arm.
4. Place the wiper arm with the wiper blade in place back on the windshield.

Notice: **Damage may occur if the wiper blades are not in contact with the windshield before turning on the wiper system.**

Rear Wiper Blade Replacement

The rear wiper blade and wiper arm have a cover for protection. The cover must be removed before the wiper blade can be replaced.

To remove the cover:

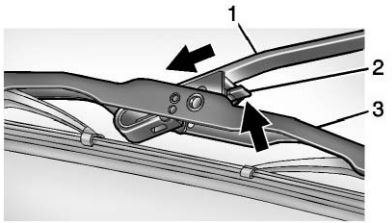


1. Grasp the cover at the base and pull upward to unsnap.
2. Slide the cover toward the wiper blade tip to unhook it from the blade assembly.
3. Remove the cover.
4. After wiper blade replacement, ensure that the cover hook slides into the slot in the blade assembly.
5. Snap the cover down to secure.

Information Provided by: DEALER E-PROCESS

To replace the wiper blade:

1. Lift the wiper arm away from the windshield.



2. Push the release lever (2) to disengage the hook and push the wiper arm (1) out of the blade assembly (3).
3. Push the new blade assembly securely on the wiper arm until the release lever clicks into place.
4. Replace the wiper cover.

Headlamp Aiming

Headlamp aim has been preset and should need no further adjustment.

If the vehicle is damaged in a crash, the headlamp aim may be affected. If adjustment to the headlamps is necessary, see your dealer.

Bulb Replacement

For the proper type of replacement bulbs, see *Replacement Bulbs on page 10-26*.

For any bulb-changing procedure not listed in this section, contact your dealer.

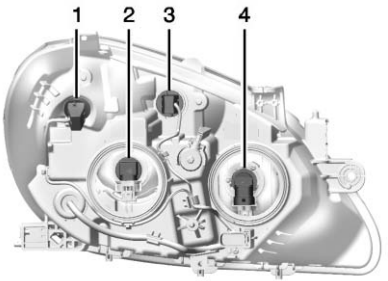
Halogen Bulbs

⚠ WARNING

Halogen bulbs have pressurized gas inside and can burst if you drop or scratch the bulb. You or others could be injured. Be sure to read and follow the instructions on the bulb package.

Information Provided by:
DEALER E-PROCESS

Headlamps, Front Turn Signal and Parking Lamps

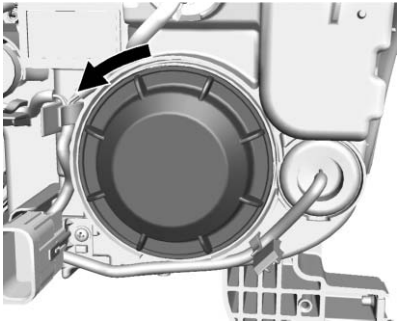


Driver Side Shown, Passenger Side Similar

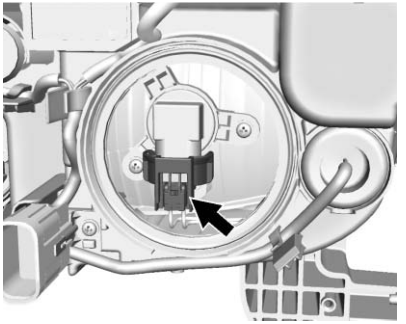
1. Turn Signal Lamp
2. Low-Beam Headlamp
3. Parking Lamp
4. High-Beam Headlamp

High-Beam Headlamp/ Low-Beam Headlamp

1. Open the hood. See *Hood on page 10-4*.



2. Remove the headlamp bulb access cover.
3. Turn the bulb counterclockwise and pull straight back.

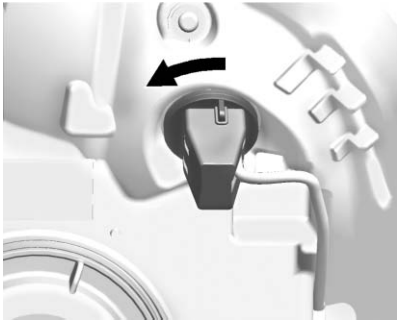


4. Disconnect the wiring harness connector from the bulb.
5. Install the new bulb in the headlamp assembly by turning clockwise.
6. Reconnect the wiring harness connector.
7. Install the headlamp bulb access cover.

Information Provided by:
DEALER E-PROCESS

Parking Lamp

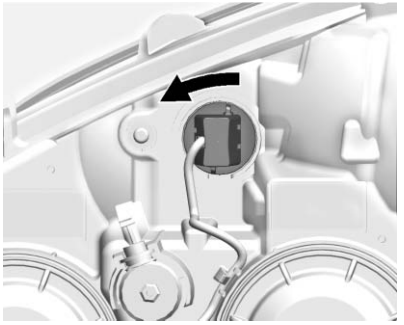
1. Open the hood. See *Hood on page 10-4*.



2. Remove the parking lamp bulb socket from the headlamp assembly by turning counterclockwise.
3. Remove the bulb from the bulb socket by pulling it straight out.
4. Install the new bulb in the bulb socket.
5. Install the bulb socket into the headlamp assembly by turning clockwise.

Turn Signal Lamp

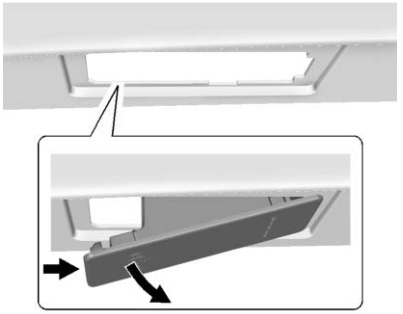
1. Open the hood. See *Hood on page 10-4*.



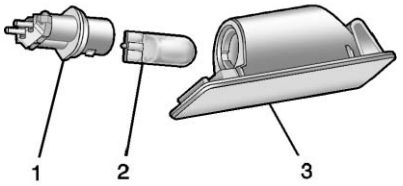
2. Remove the turn signal lamp bulb socket from the headlamp assembly by turning counterclockwise.
3. Remove the bulb from the bulb socket by pulling it straight out.
4. Install the new bulb in the bulb socket.
5. Install the bulb socket into the headlamp assembly by turning clockwise.

Information Provided by:
DEALER E-PROCESS

License Plate Lamp



Lamp Assembly



Bulb Assembly

To replace one of these bulbs:

1. Push the left end of the lamp assembly toward the right.
2. Turn the lamp assembly down to remove it.
3. Turn the bulb socket (1) counterclockwise to remove it from the lamp assembly (3).
4. Pull the bulb (2) straight out of the bulb socket (1).
5. Push the replacement bulb straight into the bulb socket and turn the bulb socket clockwise to install it into the lamp assembly.
6. Turn the lamp assembly into the lamp assembly opening engaging the clip side first.
7. Push on the lamp side opposite the clip until the lamp assembly snaps into place.

Replacement Bulbs

Exterior Lamp	Bulb Number
Back-Up Lamp	921
Front Parking Lamp	7444NA
Front Turn Signal Lamp	7444NA
High-Beam Headlamp	9005LL
License Plate Lamp	W5W LL
Low-Beam Headlamp	H11 LL

For replacement bulbs not listed here, contact your dealer.

Information Provided by:
DEALER E-PROCESS

Electrical System

Electrical System Overload

The vehicle has fuses and circuit breakers to protect against an electrical system overload.

When the current electrical load is too heavy, the circuit breaker opens and closes, protecting the circuit until the current load returns to normal or the problem is fixed. This greatly reduces the chance of circuit overload and fire caused by electrical problems.

Fuses and circuit breakers protect power devices in the vehicle.

Replace a bad fuse with a new one of the identical size and rating.

If there is a problem on the road and a fuse needs to be replaced, the same amperage fuse can be borrowed. Choose some feature of the vehicle that is not needed to use and replace it as soon as possible.

Headlamp Wiring

An electrical overload may cause the lamps to go on and off, or in some cases to remain off. Have the headlamp wiring checked right away if the lamps go on and off or remain off.

Windshield Wipers

If the wiper motor overheats due to heavy snow or ice, the windshield wipers will stop until the motor cools and will then restart.

Although the circuit is protected from electrical overload, overload due to heavy snow or ice may cause wiper linkage damage. Always clear ice and heavy snow from the windshield before using the windshield wipers.

If the overload is caused by an electrical problem and not snow or ice, be sure to get it fixed.

Fuses and Circuit Breakers

The wiring circuits in the vehicle are protected from short circuits by a combination of fuses and circuit breakers. This greatly reduces the chance of damage caused by electrical problems.

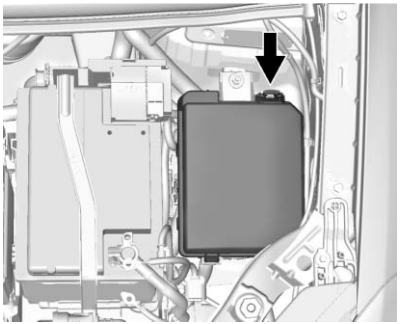
To check a fuse, look at the silver-colored band inside the fuse. If the band is broken or melted, replace the fuse. Be sure to replace a bad fuse with a new one of the identical size and rating.

Fuses of the same amperage can be temporarily borrowed from another fuse location, if a fuse goes out. Replace the fuse as soon as possible.

To identify and check fuses, circuit breakers, and relays, see *Engine Compartment Fuse Block on page 10-28*, *Instrument Panel Fuse Block on page 10-31*, and *Rear Compartment Fuse Block on page 10-33*.

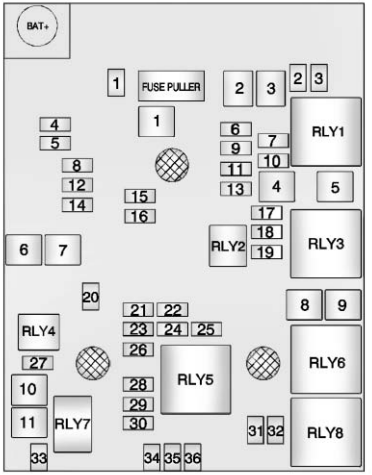
Information Provided by:
DEALER E-PROCESS

Engine Compartment Fuse Block



To remove the fuse block cover, squeeze the clip and lift it up.

Notice: **Spilling liquid on any electrical component on the vehicle may damage it. Always keep the covers on any electrical component.**



The vehicle may not be equipped with all of the fuses, relays, and features shown.

Mini Fuses	Usage
1	Sunroof
2	Outside Rearview Mirror Switch
3	Canister Vent Solenoid
4	Not Used
5	Electronic Brake Control Module Valve
6	Not Used
7	Not Used
8	Transmission Control Module Battery
9	BCM Regulated Voltage Control
10	Fuel System Control Module R/C/ Headlamp Leveling
11	Rear Wiper

Information Provided by:
DEALER E-PROCESS

Mini Fuses	Usage
12	Rear Window Defogger
13	Not Used
14	Outside Rearview Mirror Heater
15	Fuel System Control Module Battery
16	Heated Seat Module/Memory Module
17	Transmission Control Module R/C
18	Engine Control Module R/C
19	Fuel Pump
20	Not Used
21	Fan Relay (Auxiliary Fuse Block)
22	Not Used
23	Ignition Coil/Injectors
24	Washer Pump

Mini Fuses	Usage
25	Not Used
26	Canister Purge Solenoid/Water Valve Solenoid/ Oxygen Sensors – Pre and Post/Turbo Wastegate Solenoid (1.4L)/Turbo Bypass Solenoid (1.4L)
27	Not Used
28	Not Used
29	Engine Control Module Powertrain Ignition 1/Ignition 2
30	Mass Air Flow Sensor
31	Left High-Beam Headlamp
32	Right High-Beam Headlamp
33	Engine Control Module Battery

Mini Fuses	Usage
34	Horn
35	Air Conditioning Compressor Clutch
36	Front Fog Lamps

J-Case Fuses	Usage
1	Electronic Brake Control Module Pump
2	Front Wiper
3	Blower Motor
4	IEC R/C
5	Not Used
6	Not Used
7	Not Used
8	Cooling Fan Low/Mid
9	Cooling Fan High
10	EVP

Information Provided by: DEALER E-PROCESS

J-Case Fuses	Usage
11	Starter Solenoid

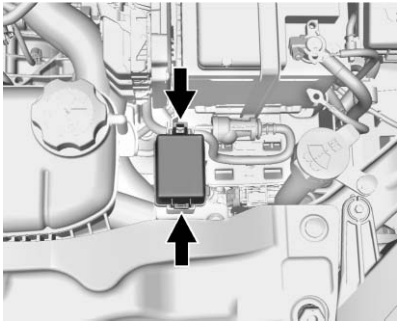
U-Micro Relays	Usage
2	Not Used
4	Spare

HC-Micro Relays	Usage
7	Starter

Mini Relays	Usage
1	Run Crank
3	Cooling Fan Mid
5	Powertrain Relay
8	Cooling Fan Low

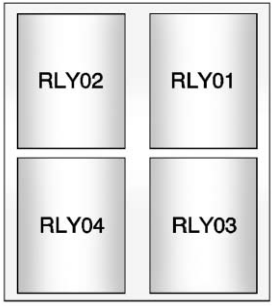
HC-Mini Relays	Usage
6	Cooling Fan High

Auxiliary Fuse Block



To remove the fuse block cover, squeeze the clips and lift it up.

Notice: **Spilling liquid on any electrical component on the vehicle may damage it. Always keep the covers on any electrical component.**



The vehicle may not be equipped with all of the fuses, relays, and features shown.

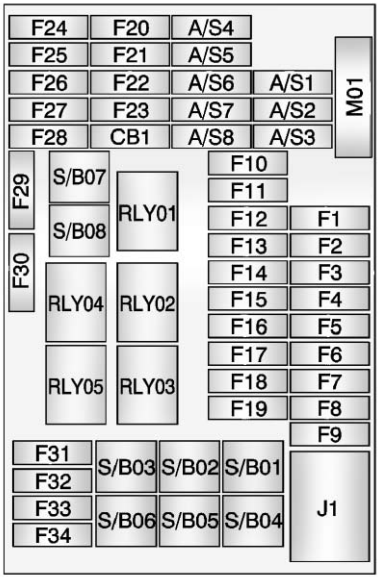
Relays	Usage
01	Electric Vacuum Pump
02	Cooling Fan Control 1
03	Cooling Fan Control 2
04	Trailer (N/A)

Information Provided by:
DEALER E-PROCESS

Instrument Panel Fuse Block



The instrument panel fuse block is on the underside of the driver side instrument panel. To access the fuses, remove the storage compartment. To remove the storage compartment, open the compartment and pull it out.



The vehicle may not be equipped with all of the fuses, relays, and features shown.

Mini Fuses	Usage
1	Body Control Module 1
2	Body Control Module 2
3	Body Control Module 3
4	Body Control Module 4
5	Body Control Module 5
6	Body Control Module 6
7	Body Control Module 7
8	Body Control Module 8
9	Discrete Logic Ignition Sensor
10	Sensing Diagnostic Module Battery
11	Data Link Connection

Information Provided by:
DEALER E-PROCESS

Mini Fuses	Usage
12	Heater, Ventilation, and Air Conditioning MDL/ICS
13	Liftgate Relay
14	UPA Module
15	LDW Module/Inside Rearview Mirror
16	Adaptive Forward Lighting Module
17	Power WNDWSW DR
18	Rain Sensor
19	Body Control Module Regulated Voltage Control
20	Steering Wheel Switch Backlighting
21	A/C Accessory Power Outlet/ PRNDL

Mini Fuses	Usage
22	Cigar Lighter/DC Accessory Power Outlet
23	Spare
24	Spare
25	Spare
26	Sensing Diagnostic Module RC/ Automatic Occupant Sensing Display
27	IPC/PTC Control/ Clutch Switch
28	Headlamp Switch/ AFL/DC Converter
29	Spare
30	Spare
31	IPC Battery
32	Radio/Chime/ Aux Jack
33	Display/Faceplate
34	OnStar/UHP/DAB

S/B Fuses	Usage
1	Spare
2	Spare
3	Power Window Motor Front
4	Power Window Motor Rear
5	Logistic Mode Relay
6	Spare
7	Spare
8	Spare

Circuit Breaker	Usage
CB1	Spare

Midi Fuse	Usage
M01	PTC

Information Provided by: DEALER E-PROCESS

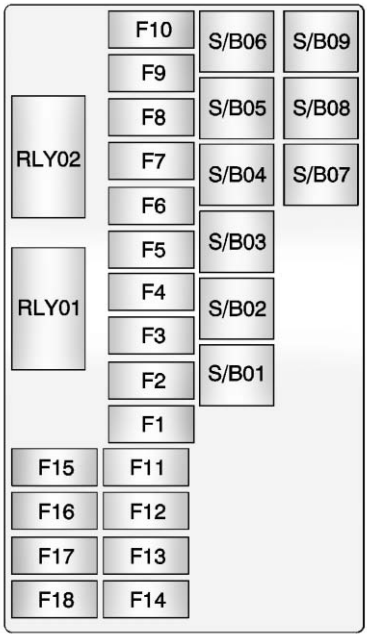
Relays	Usage
01	Accessory/Retained Accessory Power
02	Liftgate
03	Spare
04	Spare
05	Logistic Mode

Rear Compartment Fuse Block



The rear compartment fuse block is behind a cover on the left side of the rear compartment. To access the fuses, remove the cover.

The vehicle may not be equipped with all of the fuses, relays, and features shown.



Information Provided by:
DEALER E-PROCESS

Mini Fuses	Usage
1	Driver Seat Power Lumbar Switch
2	Passenger Seat Power Lumbar Switch
3	Amplifier
4	Trailer Socket (N/A)
5	All-Wheel Drive Module
6	Automatic Occupant Sensing Module
7	Spare
8	Trailer Parking Lamps (N/A)
9	Spare
10	Spare
11	Trailer Module (N/A)
12	Nav Dock
13	Heated Steering Wheel

Mini Fuses	Usage
14	Trailer Socket (N/A)
15	EVP Switch
16	Water In Fuel Sensor
17	Inside Rearview Mirror/Regulated Voltage Control
18	Spare

S/B Fuses	Usage
1	Driver Power Seat Switch/Memory Module
2	Passenger Power Seat Switch
3	Trailer Module (N/A)
4	A/C-D/C Inverter
5	Battery
6	Headlamp Washer
7	Spare

S/B Fuses	Usage
8	Spare
9	Spare

Relays	Usage
1	Ignition Relay
2	Run Relay

Information Provided by:
DEALER E-PROCESS

Wheels and Tires

Tires

Every new GM vehicle has high-quality tires made by a leading tire manufacturer. See the warranty manual for information regarding the tire warranty and where to get service. For additional information refer to the tire manufacturer.

⚠ WARNING

- Poorly maintained and improperly used tires are dangerous.
- Overloading the tires can cause overheating as a result of too much flexing. There could be a blowout

(Continued)

WARNING (Continued)

and a serious crash. See *Vehicle Load Limits on page 9-10*.

- Underinflated tires pose the same danger as overloaded tires. The resulting crash could cause serious injury. Check all tires frequently to maintain the recommended pressure. Tire pressure should be checked when the tires are cold.
- Overinflated tires are more likely to be cut, punctured, or broken by a sudden impact — such as when hitting a pothole. Keep tires at the recommended pressure.

(Continued)

WARNING (Continued)

- Worn or old tires can cause a crash. If the tread is badly worn, replace them.
- Replace any tires that have been damaged by impacts with potholes, curbs, etc.
- Improperly repaired tires can cause a crash. Only the dealer or an authorized tire service center should repair, replace, dismount, and mount the tires.
- Do not spin the tires in excess of 56 km/h (35 mph) on slippery surfaces such as snow, mud, ice, etc. Excessive spinning may cause the tires to explode.

Information Provided by: DEALER E-PROCESS

All-Season Tires

This vehicle may come with all-season tires. These tires are designed to provide good overall performance on most road surfaces and weather conditions. Original equipment tires designed to GM's specific tire performance criteria have a TPC specification code molded onto the sidewall. Original equipment all-season tires can be identified by the last two characters of this TPC code, which will be “MS.”

Consider installing winter tires on the vehicle if frequent driving on snow or ice-covered roads is expected. All-season tires provide adequate performance for most winter driving conditions, but they may not offer the same level of traction or performance as winter tires on snow or ice-covered roads. See *Winter Tires on page 10-36*.

Winter Tires

This vehicle was not originally equipped with winter tires. Winter tires are designed for increased traction on snow and ice-covered roads. Consider installing winter tires on the vehicle if frequent driving on snow or ice-covered roads is expected. See your dealer for details regarding winter tire availability and proper tire selection. Also, see *Buying New Tires on page 10-50*.

With winter tires, there may be decreased dry road traction, increased road noise, and shorter tread life. After changing to winter tires, be alert for changes in vehicle handling and braking.

If using winter tires:

- Use tires of the same brand and tread type on all four wheel positions.
- Use only radial ply tires of the same size, load range, and speed rating as the original equipment tires.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y, and ZR speed rated tires. If winter tires with a lower speed rating are chosen, never exceed the tire's maximum speed capability.

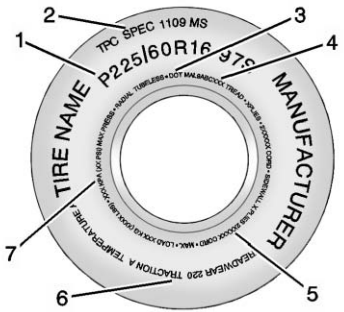
Summer Tires

This vehicle may come with high performance summer tires. These tires have a special tread and compound that are optimized for maximum dry and wet road performance. This special tread and compound will decrease performance in cold climates, and on ice and snow. We recommend installing winter tires on the vehicle if frequent driving in cold temperatures or on snow or ice covered roads is expected. See *Winter Tires on page 10-36*.

Information Provided by:
DEALER E-PROCESS

Tire Sidewall Labeling

Useful information about a tire is molded into its sidewall. The examples show a typical passenger vehicle tire and a compact spare tire sidewall.



Passenger (P-Metric) Tire Example

(1) Tire Size: The tire size is a combination of letters and numbers used to define a particular tire's width, height, aspect ratio, construction type, and service description. See the "Tire Size" illustration later in this section.

(2) TPC Spec (Tire Performance Criteria Specification): Original equipment tires designed to GM's specific tire performance criteria have a TPC specification code molded onto the sidewall. GM's TPC specifications meet or exceed all federal safety guidelines.

(3) DOT (Department of Transportation): The Department of Transportation (DOT) code indicates that the tire is in compliance with the U.S. Department of Transportation Motor Vehicle Safety Standards.

DOT Tire Date of Manufacture: The last four digits of the TIN indicate the tire manufactured date. The first two digits represent the week (01–52) and the last two digits, the year. For example, the third week of the year 2010 would have a four-digit DOT date of 0310.

(4) Tire Identification Number (TIN): The letters and numbers following the DOT (Department of Transportation) code are the Tire Identification Number (TIN). The TIN shows the manufacturer and plant code, tire size, and date the tire was manufactured. The TIN is molded onto both sides of the tire, although only one side may have the date of manufacture.

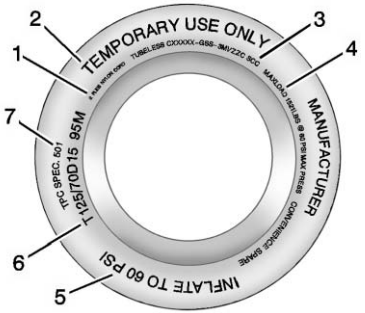
(5) Tire Ply Material: The type of cord and number of plies in the sidewall and under the tread.

(6) Uniform Tire Quality Grading (UTQG): Tire manufacturers are required to grade tires based on three

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performance factors: treadwear, traction, and temperature resistance. For more information see *Uniform Tire Quality Grading on page 10-52*.

(7) Maximum Cold Inflation Load Limit: Maximum load that can be carried and the maximum pressure needed to support that load.



Compact Spare Tire Example

(1) Tire Ply Material: The type of cord and number of plies in the sidewall and under the tread.

(2) Temporary Use Only: The compact spare tire or temporary use tire should not be driven at speeds over 80 km/h (50 mph). The compact spare tire is for emergency use when a regular road tire has lost air and gone flat. If the vehicle has a compact spare tire, see *Compact Spare Tire on page 10-61* and *If a Tire Goes Flat on page 10-55*.

(3) Tire Identification Number (TIN): The letters and numbers following the DOT (Department of Transportation) code are the Tire Identification Number (TIN). The TIN shows the manufacturer and plant code, tire size, and date the tire was manufactured. The TIN is molded onto both sides of the tire, although only one side may have the date of manufacture.

(4) Maximum Cold Inflation Load Limit: Maximum load that can be carried and the maximum pressure needed to support that load.

(5) Tire Inflation: The temporary use tire or compact spare tire should be inflated to 420 kPa (60 psi). For more information on tire pressure and inflation see *Tire Pressure on page 10-42*.

(6) Tire Size: A combination of letters and numbers define a tire's width, height, aspect ratio, construction type, and service description. The letter T as the first character in the tire size means the tire is for temporary use only.

(7) TPC Spec (Tire Performance Criteria Specification): Original equipment tires designed to GM's specific tire performance

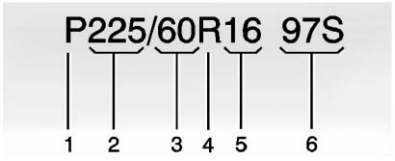
Information Provided by: DEALER E-PROCESS

criteria have a TPC specification code molded onto the sidewall. GM's TPC specifications meet or exceed all federal safety guidelines.

Tire Designations

Tire Size

The following is an example of a typical passenger vehicle tire size.



(1) Passenger (P-Metric) Tire: The United States version of a metric tire sizing system. The letter P as the first character in the tire size means a passenger vehicle tire engineered to standards set by the U.S. Tire and Rim Association.

(2) Tire Width: The three-digit number indicates the tire section width in millimeters from sidewall to sidewall.

(3) Aspect Ratio: A two-digit number that indicates the tire height-to-width measurements. For example, if the tire size aspect ratio is 60, as shown in item 3 of the illustration, it would mean that the tire's sidewall is 60 percent as high as it is wide.

(4) Construction Code: A letter code is used to indicate the type of ply construction in the tire. The letter R means radial ply construction; the letter D means diagonal or bias ply construction; and the letter B means belted-bias ply construction.

(5) Rim Diameter: Diameter of the wheel in inches.

(6) Service Description: These characters represent the load index and speed rating of the tire. The load index represents the load carrying capacity a tire is certified to carry. The speed rating is the maximum speed a tire is certified to carry a load.

Tire Terminology and Definitions

Air Pressure: The amount of air inside the tire pressing outward on each square inch of the tire. Air pressure is expressed in kPa (kilopascal) or psi (pounds per square inch).

Accessory Weight: The combined weight of optional accessories. Some examples of optional accessories are automatic transmission, power

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steering, power brakes, power windows, power seats, and air conditioning.

Aspect Ratio: The relationship of a tire's height to its width.

Belt: A rubber coated layer of cords between the plies and the tread. Cords may be made from steel or other reinforcing materials.

Bead: The tire bead contains steel wires wrapped by steel cords that hold the tire onto the rim.

Bias Ply Tire: A pneumatic tire in which the plies are laid at alternate angles less than 90 degrees to the centerline of the tread.

Cold Tire Pressure: The amount of air pressure in a tire, measured in kPa (kilopascal) or psi (pounds per square inch) before a tire has built up heat from driving. See *Tire Pressure on page 10-42*.

Curb Weight: The weight of a motor vehicle with standard and optional equipment including the maximum capacity of fuel, oil, and coolant, but without passengers and cargo.

DOT Markings: A code molded into the sidewall of a tire signifying that the tire is in compliance with the U.S. Department of Transportation (DOT) Motor Vehicle Safety Standards. The DOT code includes the Tire Identification Number (TIN), an alphanumeric designator which can also identify the tire manufacturer, production plant, brand, and date of production.

GVWR: Gross Vehicle Weight Rating. See *Vehicle Load Limits on page 9-10*.

GAWR FRT: Gross Axle Weight Rating for the front axle. See *Vehicle Load Limits on page 9-10*.

GAWR RR: Gross Axle Weight Rating for the rear axle. See *Vehicle Load Limits on page 9-10*.

Intended Outboard Sidewall: The side of an asymmetrical tire, that must always face outward when mounted on a vehicle.

Kilopascal (kPa): The metric unit for air pressure.

Light Truck (LT-Metric) Tire: A tire used on light duty trucks and some multipurpose passenger vehicles.

Load Index: An assigned number ranging from 1 to 279 that corresponds to the load carrying capacity of a tire.

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Maximum Inflation Pressure: The maximum air pressure to which a cold tire can be inflated. The maximum air pressure is molded onto the sidewall.

Maximum Load Rating: The load rating for a tire at the maximum permissible inflation pressure for that tire.

Maximum Loaded Vehicle Weight: The sum of curb weight, accessory weight, vehicle capacity weight, and production options weight.

Normal Occupant Weight: The number of occupants a vehicle is designed to seat multiplied by 68 kg (150 lb). See *Vehicle Load Limits on page 9-10*.

Occupant Distribution: Designated seating positions.

Outward Facing Sidewall: The side of an asymmetrical tire that has a particular side that faces outward when mounted on a vehicle. The side of the tire that contains a whitewall, bears white lettering, or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same moldings on the other sidewall of the tire.

Passenger (P-Metric) Tire: A tire used on passenger cars and some light duty trucks and multipurpose vehicles.

Recommended Inflation Pressure: Vehicle manufacturer's recommended tire inflation pressure as shown on the tire placard. See *Tire Pressure on page 10-42* and *Vehicle Load Limits on page 9-10*.

Radial Ply Tire: A pneumatic tire in which the ply cords that extend to the beads are laid at 90 degrees to the centerline of the tread.

Rim: A metal support for a tire and upon which the tire beads are seated.

Sidewall: The portion of a tire between the tread and the bead.

Speed Rating: An alphanumeric code assigned to a tire indicating the maximum speed at which a tire can operate.

Traction: The friction between the tire and the road surface. The amount of grip provided.

Tread: The portion of a tire that comes into contact with the road.

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Treadwear Indicators: Narrow bands, sometimes called wear bars, that show across the tread of a tire when only 1.6 mm (1/16 in) of tread remains. See *When It Is Time for New Tires on page 10-49*.

UTQGS (Uniform Tire Quality Grading Standards): A tire information system that provides consumers with ratings for a tire's traction, temperature, and treadwear. Ratings are determined by tire manufacturers using government testing procedures. The ratings are molded into the sidewall of the tire. See *Uniform Tire Quality Grading on page 10-52*.

Vehicle Capacity Weight: The number of designated seating positions multiplied by 68 kg (150 lb) plus the rated cargo load. See *Vehicle Load Limits on page 9-10*.

Vehicle Maximum Load on the Tire: Load on an individual tire due to curb weight, accessory weight, occupant weight, and cargo weight.

Vehicle Placard: A label permanently attached to a vehicle showing the vehicle capacity weight and the original equipment tire size and recommended inflation pressure. See “Tire and Loading Information Label” under *Vehicle Load Limits on page 9-10*.

Tire Pressure

Tires need the correct amount of air pressure to operate effectively.

Notice: **Neither tire underinflation nor overinflation is good. Underinflated tires, or tires that do not have enough air, can result in:**

- **Tire overloading and overheating which could lead to a blowout.**
- **Premature or irregular wear.**
- **Poor handling.**
- **Reduced fuel economy.**

Overinflated tires, or tires that have too much air, can result in:

- **Unusual wear.**
- **Poor handling.**
- **Rough ride.**
- **Needless damage from road hazards.**

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The Tire and Loading Information label on the vehicle indicates the original equipment tires and the correct cold tire inflation pressures. The recommended pressure is the minimum air pressure needed to support the vehicle's maximum load carrying capacity. See *Vehicle Load Limits on page 9-10*.

How the vehicle is loaded affects vehicle handling and ride comfort. Never load the vehicle with more weight than it was designed to carry.

When to Check

Check the tires once a month or more. Do not forget the compact spare, if the vehicle has one. The cold compact spare tire pressure should be at 420 kPa (60 psi). See *Compact Spare Tire on page 10-61*.

How to Check

Use a good quality pocket-type gauge to check tire pressure. Proper tire inflation cannot be determined by looking at the tire. Check the tire inflation pressure when the tires are cold, meaning the vehicle has not been driven for at least three hours or no more than 1.6 km (1 mi).

Remove the valve cap from the tire valve stem. Press the tire gauge firmly onto the valve to get a pressure measurement. If the cold tire inflation pressure matches the recommended pressure on the Tire and Loading Information label, no further adjustment is necessary. If the inflation pressure is low, add air until the recommended pressure is reached. If the inflation pressure is high, press on the metal stem in the center of the tire valve to release air.

Recheck the tire pressure with the tire gauge.

Return the valve caps on the valve stems to prevent leaks and keep out dirt and moisture.

Tire Pressure Monitor System

The Tire Pressure Monitor System (TPMS) uses radio and sensor technology to check tire pressure levels. The TPMS sensors monitor the air pressure in your tires and transmit tire pressure readings to a receiver located in the vehicle.

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or

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tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated.

Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists.

When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

See *Tire Pressure Monitor Operation on page 10-44*.

Federal Communications Commission (FCC) Rules and with Industry Canada Standards

See *Radio Frequency Statement on page 13-20* for information regarding Part 15 of the Federal Communications Commission (FCC) Rules and with Industry Canada Standards RSS-GEN/210/220/310.

Tire Pressure Monitor Operation

This vehicle may have a Tire Pressure Monitor System (TPMS). The TPMS is designed to warn the driver when a low tire pressure condition exists. TPMS sensors are mounted onto each tire and wheel assembly, excluding the spare tire

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and wheel assembly. The TPMS sensors monitor the air pressure in the tires and transmit the tire pressure readings to a receiver located in the vehicle.



When a low tire pressure condition is detected, the TPMS illuminates the low tire pressure warning light located on the instrument cluster. If the warning light comes on, stop as soon as possible and inflate the tires to the recommended pressure shown on the Tire and Loading Information label. See *Vehicle Load Limits on page 9-10*.

A message to check the pressure in a specific tire may display in the Driver Information Center (DIC). The low tire pressure warning light and the DIC warning message, if equipped, come on at each ignition cycle until the tires are inflated to the correct inflation pressure. Using the DIC, it may be possible to view the tire pressure levels. For additional information and details about the DIC operation and displays, see *Driver Information Center (DIC) on page 5-22*.

The low tire pressure warning light may come on in cool weather when the vehicle is first started, and then turn off as the vehicle is driven. This could be an early indicator that the air pressure is getting low and needs to be inflated to the proper pressure.

A Tire and Loading Information label shows the size of the original equipment tires and the correct inflation pressure for the tires when they are cold. See *Vehicle Load Limits on page 9-10*, for an example of the Tire and Loading Information label and its location. Also see *Tire Pressure on page 10-42*.

The TPMS can warn about a low tire pressure condition, but it does not replace normal tire maintenance. See *Tire Inspection on page 10-48*, *Tire Rotation on page 10-48*, and *Tires on page 10-35*.

Notice: **Tire sealant materials are not all the same. A non-approved tire sealant could damage the TPMS sensors. TPMS sensor damage caused by using an incorrect tire sealant is not covered by the vehicle warranty. Always use only the GM-approved tire sealant available through your dealer or included in the vehicle.**

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TPMS Malfunction Light and Message

The TPMS will not function properly if one or more of the TPMS sensors are missing or inoperable. When the system detects a malfunction, the low tire pressure warning light, defined above, flashes for about one minute and then stays on for the remainder of the ignition cycle. A DIC warning message may also display. The malfunction light and DIC warning message, if equipped, come on at each ignition cycle until the problem is corrected. Some of the conditions that can cause these to come on are:

- One of the road tires has been replaced with the spare tire. The spare tire does not have a TPMS sensor. The malfunction light and the DIC message, if equipped, should go off after the road tire is replaced and the sensor matching process is performed successfully. See "TPMS Sensor Matching Process" later in this section.
- The TPMS sensor matching process was not done or not completed successfully after rotating the tires. The malfunction light and the DIC message, if equipped, should go off after successfully completing the sensor matching process. See "TPMS Sensor Matching Process" later in this section.
- One or more TPMS sensors are missing or damaged. The malfunction light and the DIC message, if equipped, should go off when the TPMS sensors are installed and the sensor matching process is performed successfully. See your dealer for service.
- Replacement tires or wheels do not match the original equipment tires or wheels. Tires and wheels other than those recommended could prevent the TPMS from functioning properly. See *Buying New Tires on page 10-50*.
- Operating electronic devices or being near facilities using radio wave frequencies similar to the TPMS could cause the TPMS sensors to malfunction.

If the TPMS is not functioning properly, it cannot detect or signal a low tire condition. See your dealer for service if the TPMS malfunction light and DIC message, if equipped, come on and stay on.

TPMS Sensor Matching Process

Each TPMS sensor has a unique identification code. The identification code needs to be matched to a new tire/wheel position after rotating the vehicle's tires or replacing one or more of the TPMS sensors. Also, the TPMS sensor matching process should be performed after replacing a spare tire with a road tire containing the TPMS sensor. The malfunction light and the DIC message, if equipped, should go off at the next ignition cycle. The sensors are matched to the tire/

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wheel positions, using a TPMS relearn tool, in the following order: driver side front tire, passenger side front tire, passenger side rear tire, and driver side rear. See your dealer for service or to purchase a relearn tool.

There are two minutes to match the first tire/wheel position, and five minutes overall to match all four tire/wheel positions. If it takes longer, the matching process stops and must be restarted.

The TPMS sensor matching process is:

1. Set the parking brake.
2. Turn the ignition to ON/RUN with the engine off.
3. Use the MENU button to select the Vehicle Information Menu (Menu 2) in the Driver Information Center (DIC).
4. Use the thumbwheel (or up and down arrows) to scroll to the Tire Pressure Menu Item screen.
5. Press and hold the SET/CLR button to begin the sensor matching process.

   A message requesting acceptance of the process may display.
6. If requested, press the SET/CLR button again to confirm the selection.

   The horn sounds twice to signal the receiver is in relearn mode and the TIRE LEARN or TIRE LEARNING ACTIVE message displays on the DIC screen.
7. Start with the driver side front tire.
8. Place the relearn tool against the tire sidewall, near the valve stem. Then press the button to activate the TPMS sensor. A horn chirp confirms that the sensor identification code has been matched to this tire and wheel position.
9. Proceed to the passenger side front tire, and repeat the procedure in Step 8.
10. Proceed to the passenger side rear tire, and repeat the procedure in Step 8.
11. Proceed to the driver side rear tire, and repeat the procedure in Step 8. The horn sounds two times to indicate the sensor identification code has been matched to the driver side rear tire, and the TPMS sensor matching process is no longer active. The TIRE LEARN or TIRE LEARNING ACTIVE message on the DIC display screen goes off.
12. Turn the ignition to LOCK/OFF.
13. Set all four tires to the recommended air pressure level as indicated on the Tire and Loading Information label.

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Tire Inspection

We recommend that the tires, including the spare tire, if the vehicle has one, be inspected for signs of wear or damage at least once a month.

Replace the tire if:

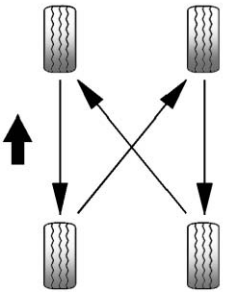
- The indicators at three or more places around the tire can be seen.
- There is cord or fabric showing through the tire's rubber.
- The tread or sidewall is cracked, cut, or snagged deep enough to show cord or fabric.
- The tire has a bump, bulge, or split.
- The tire has a puncture, cut, or other damage that cannot be repaired well because of the size or location of the damage.

Tire Rotation

Tires should be rotated every 12 000 km (7,500 mi). See *Maintenance Schedule on page 11-3*.

Tires are rotated to achieve a uniform wear for all tires. The first rotation is the most important.

Anytime unusual wear is noticed, rotate the tires as soon as possible, check for proper tire inflation pressure, and check for damaged tires or wheels. If the unusual wear continues after the rotation, check the wheel alignment. See *When It Is Time for New Tires on page 10-49* and *Wheel Replacement on page 10-54*.



Use this rotation pattern when rotating the tires.

Do not include the compact spare tire in the tire rotation.

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Adjust the front and rear tires to the recommended inflation pressure on the Tire and Loading Information label after the tires have been rotated. See *Tire Pressure on page 10-42* and *Vehicle Load Limits on page 9-10*.

Reset the Tire Pressure Monitor System. See *Tire Pressure Monitor Operation on page 10-44*.

Check that all wheel nuts are properly tightened. See “Wheel Nut Torque” under *Capacities and Specifications on page 12-2*.

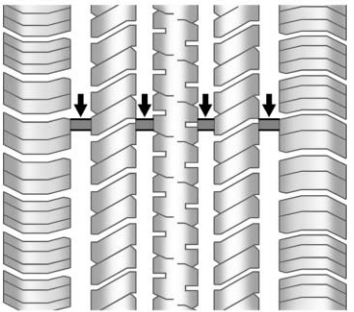
⚠ WARNING

Rust or dirt on a wheel, or on the parts to which it is fastened, can make wheel nuts become loose after time. The wheel could come off and cause an accident. When changing a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, a cloth or a paper towel can be used; however, use a scraper or wire brush later to remove all rust or dirt.

Lightly coat the center of the wheel hub with wheel bearing grease after a wheel change or tire rotation to prevent corrosion or rust build-up. Do not get grease on the flat wheel mounting surface or on the wheel nuts or bolts.

When It Is Time for New Tires

Factors such as maintenance, temperatures, driving speeds, vehicle loading, and road conditions affect the wear rate of the tires.



Treadwear indicators are one way to tell when it is time for new tires. Treadwear indicators appear when the tires have only 1.6 mm (1/16 in) or less of tread remaining. See *Tire Inspection on page 10-48* and *Tire Rotation on page 10-48*.

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The rubber in tires ages over time. This also applies to the spare tire, if the vehicle has one, even if it is never used. Multiple factors including temperatures, loading conditions, and inflation pressure maintenance affect how fast aging takes place. GM recommends that tires, including the spare if equipped, be replaced after six years, regardless of tread wear. The tire manufacturer date is the last four digits of the DOT Tire Identification Number (TIN) which is molded into one side of the tire sidewall. The first two digits represent the week (01–52) and the last two digits, the year. For example, the third week of the year 2010 would have a four-digit DOT date of 0310.

Vehicle Storage

Tires age when stored normally mounted on a parked vehicle. Park a vehicle that will be stored for at least a month in a cool, dry, clean area away from direct sunlight to slow aging. This area should be free of grease, gasoline, or other substances that can deteriorate rubber.

Parking for an extended period can cause flat spots on the tires that may result in vibrations while driving. When storing a vehicle for at least a month, remove the tires or raise the vehicle to reduce the weight from the tires.

Buying New Tires

GM has developed and matched specific tires for the vehicle. The original equipment tires installed were designed to meet General Motors Tire Performance Criteria Specification (TPC Spec) system rating. When replacement tires are needed, GM strongly recommends buying tires with the same TPC Spec rating.

GM's exclusive TPC Spec system considers over a dozen critical specifications that impact the overall performance of the vehicle, including brake system performance, ride and handling, traction control, and tire pressure monitoring performance. GM's TPC Spec number is molded onto the tire's sidewall near the tire size. If the tires have an all-season tread design, the TPC Spec number will be followed by MS for mud and snow. See *Tire Sidewall Labeling on page 10-37*.

GM recommends replacing worn tires in complete sets of four. Uniform tread depth on all tires will help to maintain the performance of the vehicle. Braking and handling performance may be adversely affected if all the tires are not replaced at the same time.

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If proper rotation and maintenance have been done, all four tires should wear out at about the same time. See *Tire Rotation on page 10-48*. However, if it is necessary to replace only one axle set of worn tires, place the new tires on the rear axle.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y and ZR speed rated tires. Never exceed the winter tires' maximum speed capability when using winter tires with a lower speed rating.

⚠ WARNING

Tires could explode during improper service. Attempting to mount or dismount a tire could cause injury or death.

(Continued)

WARNING (Continued)

Only your dealer or authorized tire service center should mount or dismount the tires.

⚠ WARNING

Mixing tires of different sizes, brands, or types may cause loss of control of the vehicle, resulting in a crash or other vehicle damage. Use the correct size, brand, and type of tires on all wheels.

⚠ WARNING

Using bias-ply tires on the vehicle may cause the wheel rim flanges to develop cracks after many miles of driving.

(Continued)

WARNING (Continued)

A tire and/or wheel could fail suddenly and cause a crash. Use only radial-ply tires with the wheels on the vehicle.

If the vehicle tires must be replaced with a tire that does not have a TPC Spec number, make sure they are the same size, load range, speed rating, and construction (radial) as the original tires.

Vehicles that have a tire pressure monitoring system could give an inaccurate low-pressure warning if non-TPC Spec rated tires are installed. See *Tire Pressure Monitor System on page 10-43*.

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The Tire and Loading Information label indicates the original equipment tires on the vehicle. See *Vehicle Load Limits on page 9-10*.

Different Size Tires and Wheels

If wheels or tires are installed that are a different size than the original equipment wheels and tires, vehicle performance, including its braking, ride and handling characteristics, stability, and resistance to rollover may be affected. If the vehicle has electronic systems such as antilock brakes, rollover airbags, traction control, electronic stability control, or All-Wheel Drive, the performance of these systems can also be affected.

⚠ WARNING

If different sized wheels are used, there may not be an acceptable level of performance and safety if tires not recommended for those wheels are selected. This increases the chance of a crash and serious injury. Only use GM specific wheel and tire systems developed for the vehicle, and have them properly installed by a GM certified technician.

See *Buying New Tires on page 10-50* and *Accessories and Modifications on page 10-2*.

Uniform Tire Quality Grading

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example:

Treadwear 200 Traction AA Temperature A

The following information relates to the system developed by the United States National Highway Traffic Safety Administration (NHTSA), which grades tires by treadwear, traction, and temperature performance. This applies only to vehicles sold in the United States. The grades are molded on the sidewalls of most passenger car tires. The Uniform Tire Quality Grading (UTQG) system does not apply to deep tread, winter tires, compact spare tires, tires with

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nominal rim diameters of 10 to 12 inches (25 to 30 cm), or to some limited-production tires.

While the tires available on General Motors passenger cars and light trucks may vary with respect to these grades, they must also conform to federal safety requirements and additional General Motors Tire Performance Criteria (TPC) standards.

All Passenger Car Tires Must Conform to Federal Safety Requirements In Addition To These Grades.

Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1½) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

Traction – AA, A, B, C

The traction grades, from highest to lowest, are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance. Warning: The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

Temperature – A, B, C

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Safety Standard No. 109. Grades B and A represent higher levels of

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performance on the laboratory test wheel than the minimum required by law. Warning: The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

Wheel Alignment and Tire Balance

The tires and wheels were aligned and balanced at the factory to provide the longest tire life and best overall performance. Adjustments to wheel alignment and tire balancing will not be necessary on a regular basis. However, check the alignment if there is unusual tire wear or if the vehicle is pulling to one side or the other. If the vehicle vibrates when driving on a smooth road, the tires and wheels might need to be rebalanced. See your dealer for proper diagnosis.

Wheel Replacement

Replace any wheel that is bent, cracked, or badly rusted or corroded. If wheel nuts keep coming loose, the wheel, wheel bolts, and wheel nuts should be replaced. If the wheel leaks air, replace it. Some aluminum wheels can be repaired. See your dealer if any of these conditions exist.

Your dealer will know the kind of wheel that is needed.

Each new wheel should have the same load-carrying capacity, diameter, width, offset, and be mounted the same way as the one it replaces.

Replace wheels, wheel bolts, wheel nuts, or Tire Pressure Monitor System (TPMS) sensors with new GM original equipment parts.

⚠ WARNING

Using the wrong replacement wheels, wheel bolts, or wheel nuts can be dangerous. It could affect the braking and handling of the vehicle. Tires can lose air, and cause loss of control, causing a crash. Always use the correct wheel, wheel bolts, and wheel nuts for replacement.

Notice: **The wrong wheel can also cause problems with bearing life, brake cooling, speedometer or odometer calibration, headlamp aim, bumper height, vehicle ground clearance, and tire or tire chain clearance to the body and chassis.**

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Used Replacement Wheels

⚠ WARNING

Replacing a wheel with a used one is dangerous. How it has been used or how far it has been driven may be unknown. It could fail suddenly and cause a crash. When replacing wheels, use a new GM original equipment wheel.

Tire Chains

⚠ WARNING

Do not use tire chains. There is not enough clearance. Tire chains used on a vehicle without the proper amount of clearance can cause damage to the brakes, suspension, or other vehicle

(Continued)

WARNING (Continued)

parts. The area damaged by the tire chains could cause loss of control and a crash.

Use another type of traction device only if its manufacturer recommends it for the vehicle's tire size combination and road conditions. Follow that manufacturer's instructions. To avoid vehicle damage, drive slow and readjust or remove the traction device if it contacts the vehicle. Do not spin the wheels. If traction devices are used, install them on the front tires.

If a Tire Goes Flat

It is unusual for a tire to blow out while driving, especially if the tires are maintained properly. See *Tires on page 10-35*. If air goes out of a tire, it is much more likely to leak out slowly. But if there ever is a blowout, here are a few tips about what to expect and what to do:

If a front tire fails, the flat tire creates a drag that pulls the vehicle toward that side. Take your foot off the accelerator pedal and grip the steering wheel firmly. Steer to maintain lane position, and then gently brake to a stop, well off the road, if possible.

A rear blowout, particularly on a curve, acts much like a skid and may require the same correction as used in a skid. Stop pressing the accelerator pedal and steer to straighten the vehicle. It may be very bumpy and noisy. Gently brake to a stop, well off the road, if possible.

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⚠ WARNING

Driving on a flat tire will cause permanent damage to the tire. Re-inflating a tire after it has been driven on while severely underinflated or flat may cause a blowout and a serious crash. Never attempt to re-inflate a tire that has been driven on while severely underinflated or flat. Have your dealer or an authorized tire service center repair or replace the flat tire as soon as possible.

⚠ WARNING

Lifting a vehicle and getting under it to do maintenance or repairs is dangerous without the appropriate safety equipment and training. If a jack is provided with the vehicle, it is designed only for

(Continued)

WARNING (Continued)

changing a flat tire. If it is used for anything else, you or others could be badly injured or killed if the vehicle slips off the jack. If a jack is provided with the vehicle, only use it for changing a flat tire.

If a tire goes flat, avoid further tire and wheel damage by driving slowly to a level place, well off the road, if possible. Turn on the hazard warning flashers. See *Hazard Warning Flashers on page 6-3*.

⚠ WARNING

Changing a tire can be dangerous. The vehicle can slip off the jack and roll over or fall causing injury or death. Find a

(Continued)

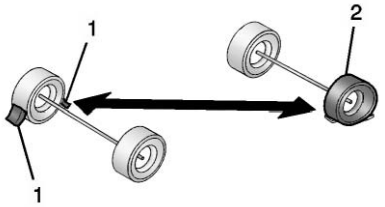
WARNING (Continued)

level place to change the tire. To help prevent the vehicle from moving:

1. Set the parking brake firmly.
2. Put an automatic transmission in P (Park) or a manual transmission in 1 (First) or R (Reverse).
3. Turn off the engine and do not restart while the vehicle is raised.
4. Do not allow passengers to remain in the vehicle.
5. Place wheel blocks on both sides of the tire at the opposite corner of the tire being changed.

When the vehicle has a flat tire (2), use the following example as a guide to assist in the placement of the wheel blocks (1).

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1. Wheel Block
2. Flat Tire

The following information explains how to repair or change a tire.

Tire Changing

Removing the Spare Tire and Tools

The spare tire and tools are located in the storage compartment in the rear of the vehicle.

To access the spare tire and tools:

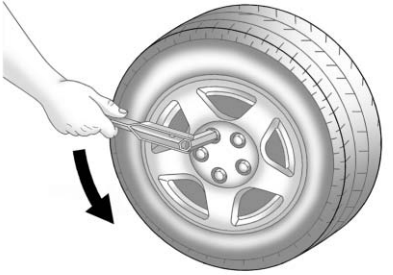
1. Open the liftgate. See *Liftgate on page 2-8*.
2. Lift the trim cover.



3. If the vehicle has a subwoofer assembly on top of the spare tire, remove it by turning the center retainer counterclockwise.
4. If the vehicle does not have a subwoofer, turn the retainer counterclockwise to remove the spare tire.
5. Remove the spare tire, jack, and tools and place them near the tire being changed.

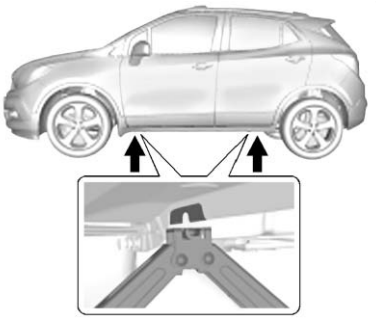
Removing the Flat Tire and Installing the Spare Tire

1. Do a safety check before proceeding. See *If a Tire Goes Flat on page 10-55*.

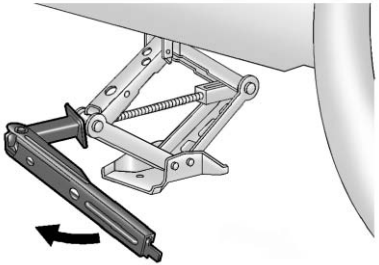


2. Turn the wheel wrench counterclockwise to loosen the wheel nuts. Do not remove them yet.

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3. Place the jack at the position marked with a half circle.



4. Place the hex tube end of the wrench over the hex head of the jack to attach it.
5. Turn the wheel wrench clockwise until the lift head is firmly contacting the proper lifting point nearest the flat tire.

⚠ WARNING

Getting under a vehicle when it is lifted on a jack is dangerous. If the vehicle slips off the jack, you could be badly injured or killed. Never get under a vehicle when it is supported only by a jack.

⚠ WARNING

Raising the vehicle with the jack improperly positioned can damage the vehicle and even make the vehicle fall. To help

(Continued)

WARNING (Continued)

avoid personal injury and vehicle damage, be sure to fit the jack lift head into the proper location before raising the vehicle.

⚠ WARNING

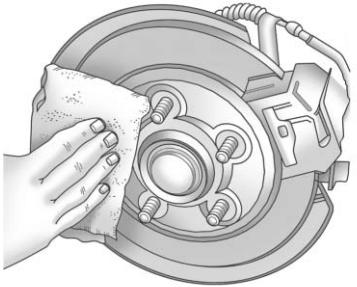
Lifting a vehicle and getting under it to do maintenance or repairs is dangerous without the appropriate safety equipment and training. If a jack is provided with the vehicle, it is designed only for changing a flat tire. If it is used for anything else, you or others could be badly injured or killed if the vehicle slips off the jack. If a jack is provided with the vehicle, only use it for changing a flat tire.

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6. Turn the wheel wrench clockwise to raise the vehicle far enough off the ground so there is enough room for the spare tire to fit underneath the wheel well.
7. Turn the wheel nuts counterclockwise to remove them.
8. Remove the flat tire.

⚠ WARNING

Rust or dirt on a wheel, or on the parts to which it is fastened, can make wheel nuts become loose after time. The wheel could come off and cause an accident. When changing a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, a cloth or a paper towel can be used; however, use a scraper or wire brush later to remove all rust or dirt.



9. Remove any rust or dirt from the wheel bolts, mounting surfaces, and spare wheel.
10. Place the spare tire on the wheel-mounting surface.

⚠ WARNING

Never use oil or grease on bolts or nuts because the nuts might come loose. The vehicle's wheel could fall off, causing a crash.

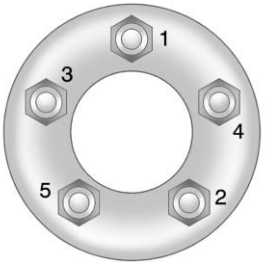
11. Reinstall the wheel nuts. Turn each nut clockwise, by hand, until the wheel is held against the hub.
12. Lower the vehicle by turning the wheel wrench counterclockwise. Lower the jack completely.

⚠ WARNING

Wheel nuts that are improperly or incorrectly tightened can cause the wheels to become loose or come off. The wheel nuts should be tightened with a torque wrench to the proper torque specification after replacing. Follow the torque specification supplied by the aftermarket manufacturer when using accessory locking wheel nuts. See *Capacities and Specifications on page 12-2* for original equipment wheel nut torque specifications.

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Notice: **Improperly tightened wheel nuts can lead to brake pulsation and rotor damage. To avoid expensive brake repairs, evenly tighten the wheel nuts in the proper sequence and to the proper torque specification. See *Capacities and Specifications on page 12-2* for the wheel nut torque specification.**



13. Tighten the wheel nuts firmly with the wheel wrench in a crisscross sequence, as shown.

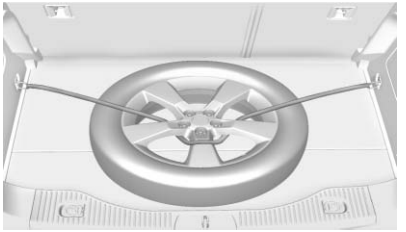
Storing a Flat or Spare Tire and Tools

⚠ WARNING

Storing a jack, a tire, or other equipment in the passenger compartment of the vehicle could cause injury. In a sudden stop or collision, loose equipment could strike someone. Store all these in the proper place.

Storing the Flat Tire and Tools

1. Return the jack and tools to their original storage location.
2. Replace the trim cover.
3. Place the flat tire, lying flat, in the rear storage compartment.
4. Attach one end of the strap to a cargo tie-down in the rear of the vehicle.



5. Route the strap through the wheel, as shown.
6. Attach the other end of the strap to the other cargo tie-down in the rear of the vehicle.
7. Tighten the strap.

Storing the Compact Spare Tire and Tools

Reverse the instructions for removing the spare tire and tools to store the spare tire.

The compact spare tire is for temporary use only. Replace the compact spare tire with a full-size tire as soon as you can. See *Compact Spare Tire on page 10-61*.

Information Provided by:
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Compact Spare Tire

⚠ WARNING

Driving with more than one compact spare tire at a time could result in loss of braking and handling. This could lead to a crash and you or others could be injured. Use only one compact spare tire at a time.

If this vehicle has a compact spare tire, it was fully inflated when new; however, it can lose air over time. Check the inflation pressure regularly. It should be 420 kPa (60 psi).

Stop as soon as possible and check that the spare tire is correctly inflated after being installed on the vehicle. The compact spare tire is designed for temporary use only. The vehicle will perform differently with the spare tire installed and it is recommended that the vehicle speed be limited to 80 km/h (50 mph). To conserve the tread of the spare tire, have the standard tire repaired or replaced as soon as convenient and return the spare tire to the storage area.

Notice: **When the compact spare is installed, do not take the vehicle through an automatic car wash with guide rails. The compact spare can get caught on the rails which can damage the tire, wheel, and other parts of the vehicle.**

Do not use the compact spare on other vehicles.

Do not mix the compact spare tire or wheel with other wheels or tires. They will not fit. Keep the spare tire and its wheel together.

Notice: **Tire chains will not fit the compact spare. Using them can damage the vehicle and the chains. Do not use tire chains on the compact spare.**

Jump Starting

For more information about the vehicle battery, see *Battery on page 10-19*.

If the battery has run down, try to use another vehicle and some jumper cables to start your vehicle. Be sure to use the following steps to do it safely.

⚠ WARNING

Batteries can hurt you. They can be dangerous because:

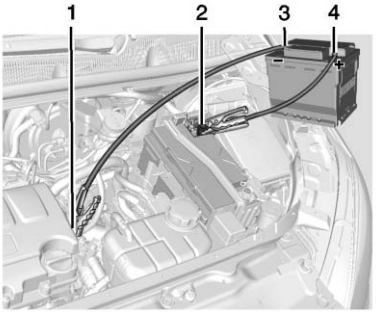
- They contain acid that can burn you.
- They contain gas that can explode or ignite.
- They contain enough electricity to burn you.

If you do not follow these steps exactly, some or all of these things can hurt you.

Information Provided by: DEALER E-PROCESS

Notice: **Ignoring these steps could result in costly damage to the vehicle that would not be covered by the warranty.**

Trying to start the vehicle by pushing or pulling it will not work, and it could damage the vehicle.



1. Discharged Battery Negative Grounding Point
2. Discharged Battery Positive Terminal
3. Good Battery Negative Terminal
4. Good Battery Positive Terminal

The jump start negative grounding point (1) for the discharged battery is the engine block or an engine mounting bolt. Connect to a spot as far away from the discharged battery as possible.

The jump start positive terminal on the discharged battery (2) is located in the engine compartment on the driver side of the vehicle.

The jump start negative terminal (3) and positive terminal (4) are on the battery of the vehicle providing the jump start.

The positive jump start connection for the discharged battery is under a trim cover. Open the cover to expose the terminal.

1. Check the other vehicle. It must have a 12-volt battery with a negative ground system.

Notice: **Only use a vehicle that has a 12-volt system with a negative ground for jump starting. If the other vehicle does not have a 12-volt system with a negative ground, both vehicles can be damaged.**

2. Position the two vehicles so that they are not touching.
3. Set the parking brake firmly and put the shift lever in P (Park) with an automatic transmission, or Neutral with a manual transmission.

Notice: **If any accessories are left on or plugged in during the jump starting procedure, they could be damaged. The repairs would not be covered by the vehicle warranty. Whenever possible, turn off or unplug all accessories on either vehicle when jump starting the vehicle.**

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4. Turn the ignition to LOCK/OFF. Turn off all lights and accessories in both vehicles, except the hazard warning flashers if needed.

⚠ WARNING

An electric fan can start up even when the engine is not running and can injure you. Keep hands, clothing and tools away from any underhood electric fan.

⚠ WARNING

Using a match near a battery can cause battery gas to explode. People have been hurt doing this, and some have been blinded. Use a flashlight if you need more light.

(Continued)

WARNING (Continued)

Be sure the battery has enough water. You do not need to add water to the battery installed in your new vehicle. But if a battery has filler caps, be sure the right amount of fluid is there. If it is low, add water to take care of that first. If you do not, explosive gas could be present.

Battery fluid contains acid that can burn you. Do not get it on you. If you accidentally get it in your eyes or on your skin, flush the place with water and get medical help immediately.

⚠ WARNING

Fans or other moving engine parts can injure you badly. Keep your hands away from moving parts once the engine is running.

5. Connect one end of the red positive (+) cable to the positive (+) terminal on the discharged battery.
6. Connect the other end of the red positive (+) cable to the positive (+) terminal of the good battery.
7. Connect one end of the black negative (–) cable to the negative (–) terminal of the good battery.
8. Connect the other end of the black negative (–) cable to the negative (–) grounding point for the discharged battery.
9. Start the engine in the vehicle with the good battery and run the engine at idle speed for at least four minutes.
10. Try to start the vehicle that had the dead battery. If it will not start after a few tries, it probably needs service.

Information Provided by: DEALER E-PROCESS

Notice: **If the jumper cables are connected or removed in the wrong order, electrical shorting may occur and damage the vehicle. The repairs would not be covered by the vehicle warranty. Always connect and remove the jumper cables in the correct order, making sure that the cables do not touch each other or other metal.**

Jumper Cable Removal

Reverse the sequence exactly when removing the jumper cables.

Towing

Towing the Vehicle

Notice: **Incorrectly towing a disabled vehicle may cause damage. The damage would not be covered by the vehicle warranty. Do not lash or hook to the chassis components including the front and rear subframes, suspension control arms and links during towing and recovery of a disabled vehicle or to secure the vehicle to a flatbed car carrier. Use the proper nylon strap harnesses around the tires to secure the flatbed car carrier.**

Have the vehicle towed on a flatbed car carrier or a wheel lift tow truck. If a wheel lift tow truck is used, the drive wheels cannot contact the road while the vehicle is being towed. A wheel dolly must be used to lift all drive wheels off the ground. Consult your dealer or a professional towing service if the disabled vehicle must be towed.

To tow the vehicle behind another vehicle for recreational purposes, such as behind a motor home, see “Recreational Vehicle Towing” following.

Recreational Vehicle Towing

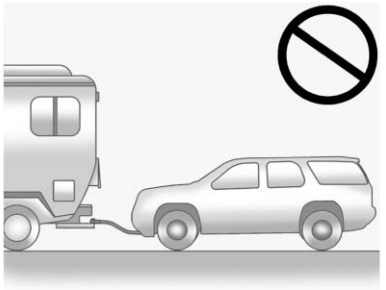
Recreational vehicle towing means towing the vehicle behind another vehicle, such as behind a motor home. The two most common types of recreational vehicle towing are known as dinghy towing and dolly towing. Dinghy towing is towing the vehicle with all four wheels on the ground. Dolly towing is towing the vehicle with two wheels on the ground and two wheels up on a device known as a dolly.

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Here are some important things to consider before recreational vehicle towing:

- What is the towing capacity of the towing vehicle? Be sure to read the tow vehicle manufacturer's recommendations.
- What is the distance that will be traveled? Some vehicles have restrictions on how far and how long they can tow.
- Is the proper towing equipment going to be used? See your dealer or trailering professional for additional advice and equipment recommendations.
- Is the vehicle ready to be towed? Just as preparing the vehicle for a long trip, make sure the vehicle is prepared to be towed.

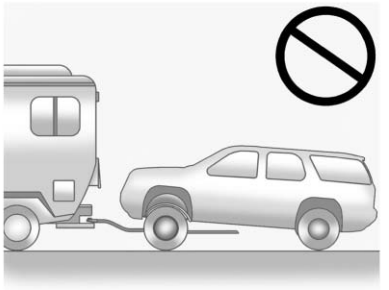
Dinghy Towing



Notice: **If the vehicle is towed with all four wheels on the ground, the drivetrain components could be damaged. The repairs would not be covered by the vehicle warranty. Do not tow the vehicle with all four wheels on the ground.**

The vehicle was not designed to be towed with all four wheels on the ground.

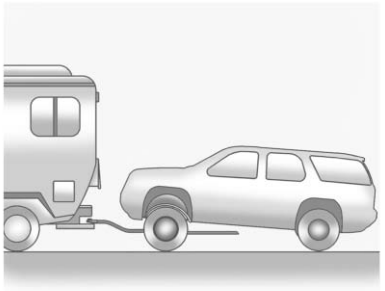
Dolly Towing (All-Wheel-Drive Vehicles)



All-wheel-drive vehicles must not be towed with two wheels on the ground. To properly tow these vehicles, they should be placed on a platform trailer with all four wheels off of the ground.

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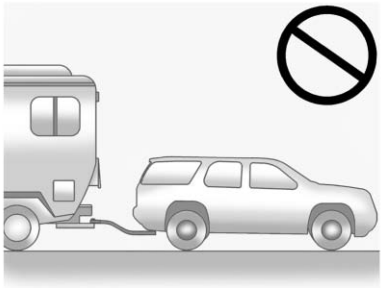
Dolly Towing (Front-Wheel-Drive Vehicles Only)

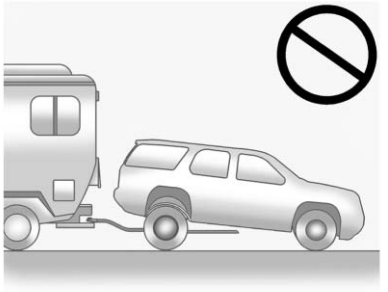


To tow a front-wheel-drive vehicle from the front with two wheels on the ground:

1. Put the front wheels on a dolly.
2. Move the shift lever to P (Park).
3. Set the parking brake.
4. Clamp the steering wheel in a straight-ahead position with a clamping device designed for towing.
5. Remove the key from the ignition.
6. Secure the vehicle to the dolly.
7. Release the parking brake.

Towing the Vehicle from the Rear





Notice: **Towing the vehicle from the rear could damage it. Also, repairs would not be covered by the vehicle warranty. Never have the vehicle towed from the rear.**

Do not tow the vehicle from the rear.

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Appearance Care

Exterior Care

Locks

Locks are lubricated at the factory. Use a de-icing agent only when absolutely necessary, and have the locks greased after using. See Recommended Fluids and Lubricants.

Washing the Vehicle

To preserve the vehicle's finish, wash it often and out of direct sunlight.

Notice: **Do not use petroleum-based, acidic, or abrasive cleaning agents as they can damage the vehicle's paint, metal, or plastic parts. If damage occurs, it would not be covered by the vehicle's warranty. Approved cleaning products can be obtained from your dealer. Follow all manufacturer directions regarding correct product usage, necessary safety precautions, and appropriate disposal of any vehicle care product.**

Notice: **Avoid using high-pressure washes closer than 30 cm (12 in) to the surface of the vehicle. Use of power washers exceeding 8,274 kPa (1,200 psi) can result in damage or removal of paint and decals.**

Rinse the vehicle well, before washing and after, to remove all cleaning agents completely. If they are allowed to dry on the surface, they could stain.

Dry the finish with a soft, clean chamois or an all-cotton towel to avoid surface scratches and water spotting.

Finish Care

Application of aftermarket clearcoat sealant/wax materials is not recommended. If painted surfaces are damaged, see your dealer to have the damage assessed and repaired. Foreign materials such as calcium chloride and other salts, ice melting agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys, etc., can damage the vehicle's finish if they remain on painted surfaces. Wash the vehicle as soon as possible. If necessary, use non-abrasive cleaners that are marked safe for painted surfaces to remove foreign matter.

Occasional hand waxing or mild polishing should be done to remove residue from the paint finish. See your dealer for approved cleaning products.

Do not apply waxes or polishes to uncoated plastic, vinyl, rubber, decals, simulated wood, or flat paint as damage can occur.

Notice: **Machine compounding or aggressive polishing on a basecoat/clearcoat paint finish may damage it. Use only non-abrasive waxes and polishes**

Information Provided by: DEALER E-PROCESS

that are made for a basecoat/clearcoat paint finish on the vehicle.

To keep the paint finish looking new, keep the vehicle garaged or covered whenever possible.

Protecting Exterior Bright Metal Parts

Regularly clean bright metal parts with water or chrome polish on chrome or stainless steel trim, if necessary.

For aluminum, never use auto or chrome polish, steam, or caustic soap to clean. A coating of wax, rubbed to a high polish, is recommended for all bright metal parts.

Cleaning Exterior Lamps/ Lenses and Emblems

Use only lukewarm or cold water, a soft cloth, and a car washing soap to clean exterior lamps, lenses and emblems. Follow instructions under "Washing the Vehicle" in this section.

Windshield and Wiper Blades

Clean the outside of the windshield with glass cleaner.

Clean rubber blades using a lint-free cloth or paper towel soaked with windshield washer fluid or a mild detergent. Wash the windshield thoroughly when cleaning the blades. Bugs, road grime, sap, and a buildup of vehicle wash/wax treatments may cause wiper streaking.

Replace the wiper blades if they are worn or damaged. Damage can be caused by extreme dusty conditions, sand, salt, heat, sun, snow, and ice.

Weatherstrips

Apply silicone grease on weatherstrips to make them last longer, seal better, and not stick or squeak. Lubricate weatherstrips once a year. Black marks from rubber material on painted surfaces can be removed by rubbing with a clean cloth. See *Recommended Fluids and Lubricants on page 11-11*.

Tires

Use a stiff brush with tire cleaner to clean the tires.

Notice: **Using petroleum-based tire dressing products on the vehicle may damage the paint finish and/or tires. When applying a tire dressing, always wipe off any overspray from all painted surfaces on the vehicle.**

Wheels and Trim — Aluminum or Chrome

Use a soft, clean cloth with mild soap and water to clean the wheels. After rinsing thoroughly with clean water, dry with a soft, clean towel. A wax may then be applied.

Notice: **Chrome wheels and other chrome trim may be damaged if the vehicle is not washed after driving on roads that have been sprayed with magnesium,**

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calcium, or sodium chloride. These chlorides are used on roads for conditions such as ice and dust. Always wash the chrome with soap and water after exposure.

Notice: **To avoid surface damage, do not use strong soaps, chemicals, abrasive polishes, cleaners, brushes, or cleaners that contain acid on aluminum or chrome-plated wheels. Use only approved cleaners. Also, never drive a vehicle with aluminum or chrome-plated wheels through an automatic car wash that uses silicone carbide tire cleaning brushes. Damage could occur and the repairs would not be covered by the vehicle warranty.**

Steering, Suspension, and Chassis Components

Visually inspect the front and rear suspension and steering system for damaged, loose, or missing parts or signs of wear. Inspect the power steering for proper hook-up, binding, leaks, cracks, chafing, etc. Visually check constant velocity joints, rubber boots, and axle seals for leaks.

Body Component Lubrication

Lubricate all key lock cylinders, hood hinges, liftgate hinges, and the steel fuel door hinge unless the components are plastic. Applying silicone grease on weatherstrips with a clean cloth will make them last longer, seal better, and not stick or squeak.

Underbody Maintenance

Use plain water to flush dirt and debris from the vehicle's underbody. Your dealer or an underbody car washing system can do this. If not removed, rust and corrosion can develop.

Sheet Metal Damage

If the vehicle is damaged and requires sheet metal repair or replacement, make sure the body repair shop applies anti-corrosion material to parts repaired or replaced to restore corrosion protection.

Original manufacturer replacement parts will provide the corrosion protection while maintaining the vehicle warranty.

Finish Damage

Quickly repair minor chips and scratches with touch-up materials available from your dealer to avoid corrosion. Larger areas of finish damage can be corrected in your dealer's body and paint shop.

Chemical Paint Spotting

Airborne pollutants can fall upon and attack painted vehicle surfaces causing blotchy, ring-shaped discolorations, and small, irregular dark spots etched into the paint surface.

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Interior Care

To prevent dirt particle abrasions, regularly clean the vehicle's interior. Immediately remove any soils. Note that newspapers or dark garments that can transfer color to home furnishings can also permanently transfer color to the vehicle's interior.

Use a soft bristle brush to remove dust from knobs and crevices on the instrument cluster. Using a mild soap solution, immediately remove hand lotions, sunscreen, and insect repellent from all interior surfaces or permanent damage may result.

Your dealer may have products for cleaning the interior. Use cleaners specifically designed for the surfaces being cleaned to prevent permanent damage. Apply all cleaners directly to the cleaning cloth. Do not spray cleaners directly on any switches or controls. Cleaners should be removed quickly. Never allow cleaners to remain on the surface being cleaned for extended periods of time.

Cleaners may contain solvents that can become concentrated in the interior. Before using cleaners, read and adhere to all safety instructions on the label. While cleaning the interior, maintain adequate ventilation by opening the doors and windows.

To prevent damage, do not clean the interior using the following cleaners or techniques:

- Never use a razor or any other sharp object to remove a soil from any interior surface.
- Never use a brush with stiff bristles.
- Never rub any surface aggressively or with excessive pressure.
- Do not use laundry detergents or dishwashing soaps with degreasers. For liquid cleaners, use approximately 20 drops per 3.78 L (1 gal) of water. A concentrated soap solution will leave a residue that creates streaks and attracts dirt. Do not use solutions that contain strong or caustic soap.
- Do not heavily saturate the upholstery when cleaning.
- Do not use solvents or cleaners containing solvents.

Interior Glass

To clean, use a terry cloth fabric dampened with water. Wipe droplets left behind with a clean dry cloth. Commercial glass cleaners may be used, if necessary, after cleaning the interior glass with plain water.

Notice: **To prevent scratching, never use abrasive cleaners on automotive glass. Abrasive cleaners or aggressive cleaning may damage the rear window defogger.**

Information Provided by: DEALER E-PROCESS

Notice: **Cleaning the windshield with water during the first three to six months of ownership will reduce tendency to fog.**

Speaker Covers

Vacuum around a speaker cover gently, so that the speaker will not be damaged. Clean spots with just water and mild soap.

Coated Moldings

Coated moldings should be cleaned.

- When lightly soiled, wipe with a sponge or soft lint-free cloth dampened with water.
- When heavily soiled, use warm soapy water.

Fabric/Carpet/Suede

Start by vacuuming the surface using a soft brush attachment. If a rotating brush attachment is being used during vacuuming, only use it on the floor carpet. Before cleaning, gently remove as much of the soil as possible using one of the following techniques:

- Gently blot liquids with a paper towel. Continue blotting until no more soil can be removed.
- For solid soils, remove as much as possible prior to vacuuming.

To clean:

1. Saturate a clean lint-free colorfast cloth with water or club soda. Microfiber cloth is recommended to prevent lint transfer to the fabric or carpet.
2. Remove excess moisture by gently wringing until water does not drip from the cleaning cloth.
3. Start on the outside edge of the soil and gently rub toward the center. Fold the cleaning cloth to a clean area frequently to prevent forcing the soil in to the fabric.
4. Continue gently rubbing the soiled area until there is no longer any color transfer from the soil to the cleaning cloth.
5. If the soil is not completely removed, use a mild soap solution followed only by club soda or plain water.

If the soil is not completely removed, it may be necessary to use a commercial upholstery cleaner or spot lifter. Test a small hidden area for colorfastness before using a commercial upholstery cleaner or spot lifter. If ring formation occurs, clean the entire fabric or carpet.

Following the cleaning process, a paper towel can be used to blot excess moisture.

Information Provided by: DEALER E-PROCESS

Cleaning High Gloss Surfaces and Vehicle Information and Radio Displays

For vehicles with high gloss surfaces or vehicle displays, use a microfiber cloth to wipe surfaces. Before wiping the surface with the microfiber cloth, use a soft bristle brush to remove dirt that could scratch the surface. Then use the microfiber cloth by gently rubbing to clean. Never use window cleaners or solvents. Periodically hand wash the microfiber cloth separately, using mild soap. Do not use bleach or fabric softener. Rinse thoroughly and air dry before next use.

Notice: **Do not attach a device with a suction cup to the display. This may cause damage and would not be covered by the warranty.**

Instrument Panel, Leather, Vinyl, and Other Plastic Surfaces

Use a soft microfiber cloth dampened with water to remove dust and loose dirt. For a more thorough cleaning, use a soft microfiber cloth dampened with a mild soap solution.

Notice: **Soaking or saturating leather, especially perforated leather, as well as other interior surfaces, may cause permanent damage. Wipe excess moisture from these surfaces after cleaning and allow them to dry naturally. Never use heat, steam, spot lifters, or spot removers. Do not use cleaners that contain silicone or wax-based products. Cleaners containing these solvents can permanently change the appearance and feel of leather or soft trim and are not recommended.**

Do not use cleaners that increase gloss, especially on the instrument panel. Reflected glare can decrease visibility through the windshield under certain conditions.

Notice: **Use of air fresheners may cause permanent damage to plastics and painted surfaces. If an air freshener comes in contact with any plastic or painted surface in the vehicle, blot immediately and clean with a soft cloth dampened with a mild soap solution. Damage caused by air fresheners would not be covered by the vehicle warranty.**

Cargo Cover and Convenience Net

Wash with warm water and mild detergent. Do not use chlorine bleach. Rinse with cold water, and then dry completely.

Information Provided by: DEALER E-PROCESS

Care of Safety Belts

Keep belts clean and dry.

⚠ WARNING

Do not bleach or dye safety belts. It may severely weaken them. In a crash, they might not be able to provide adequate protection. Clean safety belts only with mild soap and lukewarm water.

Floor Mats

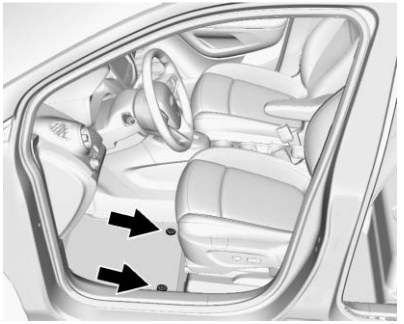
⚠ WARNING

If a floor mat is the wrong size or is not properly installed, it can interfere with the pedals. Interference with the pedals can cause unintended acceleration and/or increased stopping distance which can cause a crash and injury. Make sure the floor mat does not interfere with the pedals.

Use the following guidelines for proper floor mat usage.

- The original equipment floor mats were designed for your vehicle. If the floor mats need replacing, it is recommended that GM certified floor mats be purchased. Non-GM floor mats may not fit properly and may interfere with the accelerator or brake pedal. Always check that the floor mats do not interfere with the pedals.
- Use the floor mat with the correct side up. Do not turn it over.
- Do not place anything on top of the driver side floor mat.
- Use only a single floor mat on the driver side.
- Do not place one floor mat on top of another.

The driver side floor mat is held in place by a button-type retainer.



Removing and Replacing the Floor Mats

1. Pull up on the rear of the floor mat to unlock the retainers and remove.
2. Reinstall by lining up the floor mat retainer openings over the carpet retainers and snap into position.
3. Make sure the floor mat is properly secured and verify that it does not interfere with the pedals.

Information Provided by: DEALER E-PROCESS

✍ NOTES

Information Provided by
DEALER E-PROCESS

Service and Maintenance

General Information
General Information 11-1

Maintenance Schedule
Maintenance Schedule 11-3

Special Application Services
Special Application Services 11-8

Additional Maintenance and Care
Additional Maintenance and Care 11-8

Recommended Fluids, Lubricants, and Parts
Recommended Fluids and Lubricants 11-11
Maintenance Replacement Parts 11-12

Maintenance Records
Maintenance Records 11-13

General Information

Your vehicle is an important investment. This section describes the required maintenance for the vehicle. Follow this schedule to help protect against major repair expenses resulting from neglect or inadequate maintenance. It may also help to maintain the value of the vehicle if it is sold. It is the responsibility of the owner to have all required maintenance performed.

Your dealer has trained technicians who can perform required maintenance using genuine replacement parts. They have up-to-date tools and equipment for fast and accurate diagnostics. Many dealers have extended evening and Saturday hours, courtesy transportation, and online scheduling to assist with service needs.

Your dealer recognizes the importance of providing competitively priced maintenance and repair services. With trained technicians, the dealer is the place for routine maintenance such as oil changes and tire rotations and additional maintenance items like tires, brakes, batteries, and wiper blades.

Notice: **Damage caused by improper maintenance can lead to costly repairs and may not be covered by the vehicle warranty. Maintenance intervals, checks, inspections, recommended fluids, and lubricants are important to keep the vehicle in good working condition.**

The Tire Rotation and Required Services are the responsibility of the vehicle owner. It is recommended to have your dealer perform these services every 12 000 km/7,500 mi. Proper vehicle maintenance helps to keep the vehicle in good working condition, improves fuel economy, and reduces vehicle emissions.

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Because of the way people use vehicles, maintenance needs vary. There may need to be more frequent checks and services. The Additional Required Services - Normal are for vehicles that:

- Carry passengers and cargo within recommended limits on the Tire and Loading Information label. See *Vehicle Load Limits on page 9-10*.
- Are driven on reasonable road surfaces within legal driving limits.
- Use the recommended fuel. See *Recommended Fuel on page 9-42*.

Refer to the information in the Maintenance Schedule Additional Required Services - Normal chart.

The Additional Required Services - Severe are for vehicles that are:

- Mainly driven in heavy city traffic in hot weather.
- Mainly driven in hilly or mountainous terrain.
- Frequently towing a trailer.
- Used for high speed or competitive driving.
- Used for taxi, police, or delivery service.

Refer to the information in the Maintenance Schedule Additional Required Services - Severe chart.

⚠ WARNING

Performing maintenance work can be dangerous and can cause serious injury. Perform maintenance work only if the required information, proper tools, and equipment are available.
If they are not, see your dealer to have a trained technician do the work. See *Doing Your Own Service Work on page 10-3*.

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Maintenance Schedule

Owner Checks and Services

At Each Fuel Stop

- Check the engine oil level. See *Engine Oil on page 10-7*.

Once a Month

- Check the tire inflation pressures. See *Tire Pressure on page 10-42*.
- Inspect the tires for wear. See *Tire Inspection on page 10-48*.
- Check the windshield washer fluid level. See *Washer Fluid on page 10-16*.

Engine Oil Change

When the CHANGE ENGINE OIL SOON DIC message displays, have the engine oil and filter changed within the next 1 000 km/600 mi. If driven under the best conditions, the engine oil life system might not indicate the need for vehicle service for more than a year. The engine oil and filter must be changed at least once a year and the oil life system must be reset. Your trained dealer technician can perform this work. If the engine oil life system is reset accidentally, service the vehicle within 5 000 km/3,000 mi since the last service. Reset the oil life system when the oil is changed. See *Engine Oil Life System on page 10-9*.

Tire Rotation and Required Services Every 12 000 km/ 7,500 mi

Rotate the tires, if recommended for the vehicle, and perform the following services. See *Tire Rotation on page 10-48*.

- Check engine oil level and oil life percentage. If needed, change engine oil and filter, and reset oil life system. See *Engine Oil on page 10-7* and *Engine Oil Life System on page 10-9*.
- Check engine coolant level. See *Engine Coolant on page 10-12*.
- Check engine cooling system hoses and connections.
- Check windshield washer fluid level. See *Washer Fluid on page 10-16*.
- Visually inspect windshield wiper blades for wear, cracking, or contamination. See *Exterior Care on page 10-67*. Replace worn or damaged wiper blades. See *Wiper Blade Replacement on page 10-21*.
- Check tire inflation pressures. See *Tire Pressure on page 10-42*.
- Inspect tire wear. See *Tire Inspection on page 10-48*.
- Visually check for fluid leaks.
- Inspect engine air cleaner filter. See *Engine Air Cleaner/Filter on page 10-10*.
- Inspect brake system.

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- Visually inspect steering, suspension, and chassis components for damaged, loose, or missing parts or signs of wear. See *Exterior Care on page 10-67*.
- Check restraint system components. See *Safety System Check on page 3-22*.
- Visually inspect fuel system for damage or leaks.
- Visually inspect exhaust system and nearby heat shields for loose or damaged parts.
- Lubricate body components. See *Exterior Care on page 10-67*.
- Check starter switch. See *Starter Switch Check on page 10-20*.
- Check automatic transmission shift lock control function. See *Automatic Transmission Shift Lock Control Function Check on page 10-20*.
- Check ignition transmission lock. See *Ignition Transmission Lock Check on page 10-21*.
- Check parking brake and automatic transmission park mechanism. See *Park Brake and P (Park) Mechanism Check on page 10-21*.
- Check accelerator pedal for damage, high effort, or binding. Replace if needed.
- Visually inspect gas strut for signs of wear, cracks, or other damage. Check the hold open ability of the strut. See your dealer if service is required.
- Inspect sunroof track and seal, if equipped. See *Sunroof on page 2-16*.

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Additional Required Services

Maintenance Schedule Additional Required Services - Normal	12000km/7,500mi	24000km/15,000mi	36000km/22,500mi	48000km/30,000mi	60000km/37,500mi	72000km/45,000mi	84000km/52,500mi	96000km/60,000mi	108000km/67,500mi	120000km/75,000mi	132000km/82,500mi	144000km/90,000mi	156000km/97,500mi	168000km/105,000mi	180000km/112,500mi	192000km/120,000mi	204000km/127,500mi	216000km/135,000mi	228000km/142,500mi	240000km/150,000mi
Rotate tires and perform Required Services. Check engine oil level and oil life percentage. Change engine oil and filter, if needed.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replace passenger compartment air filter. (1)			✓			✓			✓			✓			✓			✓		
Inspect evaporative control system. (2)						✓						✓						✓		
Replace engine air cleaner filter. (3)						✓						✓						✓		
Replace spark plugs. Inspect spark plug wires.													✓							
Change automatic transmission fluid. Change filter if serviceable.													✓							
Drain, flush, and fill engine cooling system. (4)																				✓
Visually inspect accessory drive belts. (5)																				✓
Replace brake fluid. (6)				✓				✓				✓				✓				✓

Footnotes — Maintenance Schedule Additional Required Services - Normal

(1) Or every two years, whichever comes first. More frequent replacement may be needed if the vehicle is driven in areas with heavy traffic, areas with poor air quality, or areas with high dust levels. Replacement may also be needed if there is a reduction in air flow, excessive window fogging, or odors.

Information Provided by: DEALER E-PROCESS

(2) Check all fuel and vapor lines and hoses for proper hook-up, routing, and condition. Check that the purge valve works properly, if the vehicle has one. Replace as needed.

(3) Or every four years, whichever comes first.

(4) Or every five years, whichever comes first. See *Cooling System on page 10-11*.

(5) Or every 10 years, whichever comes first. Inspect for fraying, excessive cracking, or damage; replace, if needed.

(6) Or every two years, whichever comes first.

Information Provided by:
DEALER E-PROCESS

Maintenance Schedule Additional Required Services - Severe	12000km/7,500mi	24000km/15,000mi	36000km/22,500mi	48000km/30,000mi	60000km/37,500mi	72000km/45,000mi	84000km/52,500mi	96000km/60,000mi	108000km/67,500mi	120000km/75,000mi	132000km/82,500mi	144000km/90,000mi	156000km/97,500mi	168000km/105,000mi	180000km/112,500mi	192000km/120,000mi	204000km/127,500mi	216000km/135,000mi	228000km/142,500mi	240000km/150,000mi
Rotate tires and perform Required Services. Check engine oil level and oil life percentage. Change engine oil and filter, if needed.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replace passenger compartment air filter. (1)			✓			✓			✓			✓			✓			✓		
Inspect evaporative control system. (2)						✓						✓						✓		
Replace engine air cleaner filter. (3)		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓
Change automatic transmission fluid. Change filter if serviceable.						✓						✓						✓		
Replace spark plugs. Inspect spark plug wires.													✓							
Drain, flush, and fill engine cooling system. (4)																				✓
Visually inspect accessory drive belts. (5)																				✓
Replace brake fluid. (6)				✓				✓				✓				✓				✓

Footnotes — Maintenance Schedule Additional Required Services - Severe

(1) Or every two years, whichever comes first. More frequent replacement may be needed if the vehicle is driven in areas with heavy traffic, areas with poor air quality, or areas with high dust levels. Replacement may also be needed if there is a reduction in air flow, excessive window fogging, or odors.

(2) Check all fuel and vapor lines and hoses for proper hook-up, routing, and condition. Check that the purge valve works properly, if the vehicle has one. Replace as needed.

Information Provided by: DEALER E-PROCESS

(3) Or every four years, whichever comes first.

(4) Or every five years, whichever comes first. See *Cooling System on page 10-11*.

(5) Or every 10 years, whichever comes first. Inspect for fraying, excessive cracking, or damage; replace, if needed.

(6) Or every two years, whichever comes first.

Special Application Services

- Severe Commercial Use Vehicles Only: Lubricate chassis components every 5 000 km/ 3,000 mi.
- Have underbody flushing service performed once a year.

Additional Maintenance and Care

Your vehicle is an important investment and caring for it properly may help to avoid future costly repairs. To maintain vehicle performance, additional maintenance services may be required.

It is recommended that your dealer perform these services — their trained dealer technicians know your vehicle best. Your dealer can also perform a thorough assessment with a multi-point inspection to recommend when your vehicle may need attention.

The following list is intended to explain the services and conditions to look for that may indicate services are required.

Battery

The battery supplies power to start the engine and operate any additional electrical accessories.

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- To avoid break-down or failure to start the vehicle, maintain a battery with full cranking power.
- Trained dealer technicians have the diagnostic equipment to test the battery and ensure that the connections and cables are corrosion-free.

Belts

- Belts may need replacing if they squeak or show signs of cracking or splitting.
- Trained dealer technicians have access to tools and equipment to inspect the belts and recommend adjustment or replacement when necessary.

Brakes

Brakes stop the vehicle and are crucial to safe driving.

- Signs of brake wear may include chirping, grinding, or squealing noises, or difficulty stopping.
- Trained dealer technicians have access to tools and equipment to inspect the brakes and recommend quality parts engineered for the vehicle.

Fluids

Proper fluid levels and approved fluids protect the vehicle's systems and components. See *Recommended Fluids and Lubricants on page 11-11* for GM approved fluids.

- Engine oil and windshield washer fluid levels should be checked at every fuel fill.
- Instrument cluster lights may come on to indicate that fluids may be low and need to be filled.

Hoses

Hoses transport fluids and should be regularly inspected to ensure that there are no cracks or leaks. With a multi-point inspection, your dealer can inspect the hoses and advise if replacement is needed.

Lamps

Properly working headlamps, taillamps, and brake lamps are important to see and be seen on the road.

- Signs that the headlamps need attention include dimming, failure to light, cracking, or damage. The brake lamps need to be checked periodically to ensure that they light when braking.
- With a multi-point inspection, your dealer can check the lamps and note any concerns.

Shocks and Struts

Shocks and struts help aid in control for a smoother ride.

- Signs of wear may include steering wheel vibration, bounce/sway while braking, longer stopping distance, or uneven tire wear.
- As part of the multi-point inspection, trained dealer technicians can visually inspect

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the shocks and struts for signs of leaking, blown seals, or damage, and can advise when service is needed.

Tires

Tires need to be properly inflated, rotated, and balanced. Maintaining the tires can save money and fuel, and can reduce the risk of tire failure.

- Signs that the tires need to be replaced include three or more visible treadwear indicators; cord or fabric showing through the rubber; cracks or cuts in the tread or sidewall; or a bulge or split in the tire.
- Trained dealer technicians can inspect and recommend the right tires. Your dealer can also provide tire/wheel balancing services to ensure smooth vehicle operation at all speeds. Your dealer sells and services name brand tires.

Vehicle Care

To help keep the vehicle looking like new, vehicle care products are available from your dealer. For information on how to clean and protect the vehicle's interior and exterior, see *Interior Care on page 10-70* and *Exterior Care on page 10-67*.

Wheel Alignment

Wheel alignment is critical for ensuring that the tires deliver optimal wear and performance.

- Signs that the alignment may need to be adjusted include pulling, improper vehicle handling, or unusual tire wear.
- Your dealer has the required equipment to ensure proper wheel alignment.

Windshield

For safety, appearance, and the best viewing, keep the windshield clean and clear.

- Signs of damage include scratches, cracks, and chips.
- Trained dealer technicians can inspect the windshield and recommend proper replacement if needed.

Wiper Blades

Wiper blades need to be cleaned and kept in good condition to provide a clear view.

- Signs of wear include streaking, skipping across the windshield, and worn or split rubber.
- Trained dealer technicians can check the wiper blades and replace them when needed.

Information Provided by: DEALER E-PROCESS

Recommended Fluids, Lubricants, and Parts

Recommended Fluids and Lubricants

Usage	Fluid/Lubricant
Engine Oil	Use only engine oil licensed to the dexos1 specfication, or equivalent, of the proper SAE viscosity grade. ACDelco dexos1 Synthetic Blend is recommended. See *Engine Oil on page 10-7*.
Engine Coolant	50/50 mixture of clean, drinkable water and use only DEX-COOL Coolant. See *Engine Coolant on page 10-12*.
Hydraulic Brake System	DOT 4 Hydraulic Brake Fluid (GM Part No. 19299570, in Canada 19299571).
Windshield Washer	Automotive windshield washer fluid that meets regional freeze protection requirements.
Hydraulic Power Steering System	DEXRON®-VI Automatic Transmission Fluid.
Automatic Transmission	DEXRON®-VI Automatic Transmission Fluid.
Key Lock Cylinders	Multi-Purpose Lubricant, Superlube (GM Part No. 12346241, in Canada 10953474).
Hood Latch Assembly, Secondary Latch, Pivots, Spring Anchor, and Release Pawl	Lubriplate Lubricant Aerosol (GM Part No. 89021668, in Canada 89021674) or lubricant meeting requirements of NLGI #2, Category LB or GC-LB.

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Usage	Fluid/Lubricant
Hood and Door Hinges	Multi-Purpose Lubricant, Superlube (GM Part No. 12346241, in Canada 10953474).
Weatherstrip Conditioning	Weatherstrip Lubricant (GM Part No. 3634770, in Canada 10953518) or Dielectric Silicone Grease (GM Part No. 12345579, in Canada 10953481).

Maintenance Replacement Parts

Replacement parts identified below by name, part number, or specification can be obtained from your dealer.

Maintenance Replacement Parts

Part	GM Part Number	ACDelco Part Number
Engine Air Cleaner/Filter	95021102	—
Engine Oil Filter	93185674	PF2257G
Passenger Compartment Air Filter	13271190	CF181
Spark Plugs	55585517	—
Wiper Blades		
Driver Side – 65.0 cm (25.6 in)	95915125	—
Passenger Side – 38.0 cm (15.0 in)	95915127	—
Rear – 26.5 cm (10.4 in)	95915137	—

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Maintenance Records

After the scheduled services are performed, record the date, odometer reading, who performed the service, and the type of services performed in the boxes provided. Retain all maintenance receipts.

Date	Odometer Reading	Serviced By	Services Performed

Information Provided by:
DEALER E-PROCESS

Date	Odometer Reading	Serviced By	Services Performed

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Technical Data

Vehicle Identification
Vehicle Identification Number (VIN) 12-1
Service Parts Identification Label 12-1

Vehicle Data
Capacities and Specifications 12-2
Engine Drive Belt Routing . . . 12-4

Vehicle Identification

Vehicle Identification Number (VIN)





This legal identifier is in the front corner of the instrument panel, on the left side of the vehicle. It can be seen through the windshield from outside. The VIN also appears on the Vehicle Certification and Service Parts labels and certificates of title and registration.

Engine Identification

The eighth character in the VIN is the engine code. This code identifies the vehicle's engine, specifications, and replacement parts. See “Engine Specifications” under *Capacities and Specifications on page 12-2* for the vehicle's engine code.

Service Parts Identification Label

If equipped, this label on the inside of the glove box, has the following information:

- Vehicle Identification Number (VIN).
- Model designation.
- Paint information.
- Production options and special equipment.

Do not remove this label from the vehicle.

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Vehicle Data

Capacities and Specifications

The following approximate capacities are given in metric and English conversions. See *Recommended Fluids and Lubricants on page 11-11* for more information.

Application	Capacities	
	Metric	English
Air Conditioning Refrigerant	For the air conditioning system refrigerant type and charge amount, see the refrigerant label under the hood. See your dealer for more information.	
Cooling System		
1.4L L4	6.5 L	6.9 qt
Engine Oil with Filter		
1.4L L4	4.0 L	4.2 qt
Fuel Tank	53 L	14 gal
Wheel Nut Torque	140 N•m	100 lb ft
All capacities are approximate. When adding, be sure to fill to the approximate level, as recommended in this manual. Recheck fluid level after filling.		

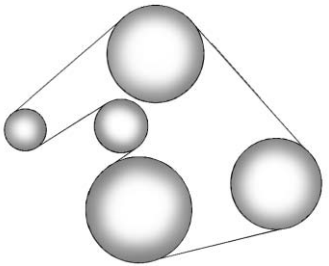
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Engine Specifications

Engine	VIN Code	Transmission	Spark Plug Gap
1.4L L4	B	Automatic	0.7 mm (0.028 in)
1.4L L4	8	Automatic	0.7 mm (0.028 in)

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Engine Drive Belt Routing



1.4L L4 Engine

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DEALER E-PROCESS

Customer Information

Customer Information

Customer Satisfaction Procedure (U.S. and Canada) 13-2
Customer Satisfaction Procedure (Mexico) 13-4
Customer Assistance Offices (U.S. and Canada) 13-5
Customer Assistance Offices (Mexico) 13-5
Customer Assistance for Text Telephone (TTY) Users (U.S. and Canada) 13-6
Online Owner Center 13-6
GM Mobility Reimbursement Program (U.S. and Canada) 13-7
Roadside Assistance Program (Mexico) 13-7
Roadside Assistance Program (U.S. and Canada) 13-11
Scheduling Service Appointments (U.S. and Canada) 13-12
Courtesy Transportation Program (U.S. and Canada) 13-13
Collision Damage Repair (U.S. and Canada) 13-14
Service Publications Ordering Information 13-16

Reporting Safety Defects

Reporting Safety Defects to the United States Government 13-17
Reporting Safety Defects to the Canadian Government 13-18
Reporting Safety Defects to General Motors 13-18

Vehicle Data Recording and Privacy

Vehicle Data Recording and Privacy 13-19
Event Data Recorders 13-19
OnStar® 13-20
Infotainment System 13-20
Radio Frequency Identification (RFID) 13-20
Radio Frequency Statement 13-20

Information Provided by: DEALER E-PROCESS

Customer Information

Customer Satisfaction Procedure (U.S. and Canada)

Your satisfaction and goodwill are important to your dealer and to Buick. Normally, any concerns with the sales transaction or the operation of the vehicle will be resolved by your dealer's sales or service departments. Sometimes, however, despite the best intentions of all concerned, misunderstandings can occur. If your concern has not been resolved to your satisfaction, the following steps should be taken:

STEP ONE: Discuss your concern with a member of dealership management. Normally, concerns can be quickly resolved at that level. If the matter has already been reviewed with the sales, service, or parts manager, contact the owner of your dealership or the general manager.

STEP TWO: If after contacting a member of dealership management, it appears your concern cannot be resolved by your dealership without further help, in the U.S., call 1-800-521-7300. In Canada, contact General Motors of Canada Customer Care Centre at 1-800-263-3777 (English) or 1-800-263-7854 (French).

We encourage you to call the toll-free number in order to give the inquiry prompt attention. Have the following information available to give the Customer Assistance representative:

- Vehicle Identification Number (VIN). This is available from the vehicle registration or title, or the plate at the top left of the instrument panel and visible through the windshield.
- Dealership name and location.
- Vehicle delivery date and present mileage.

When contacting Buick, remember that your concern will likely be resolved at a dealer's facility. That is why we suggest following Step One first.

STEP THREE — U.S. Owners: Both General Motors and your dealer are committed to making sure you are completely satisfied with the new vehicle. However, if you continue to remain unsatisfied after following the procedure outlined in Steps One and Two, you can file with the Better Business Bureau (BBB) Auto Line® Program to enforce your rights.

The BBB Auto Line Program is an out-of-court program administered by the Council of Better Business Bureaus to settle automotive disputes regarding vehicle repairs or the interpretation of the New Vehicle Limited Warranty. Although you may be required to resort to this informal dispute resolution program prior to filing a court action, use of the program is free of charge and your case will generally be heard within

Information Provided by: DEALER E-PROCESS

40 days. If you do not agree with the decision given in your case, you may reject it and proceed with any other venue for relief available to you.

You may contact the BBB Auto Line Program using the toll-free telephone number or write them at the following address:

BBB Auto Line Program
Council of Better Business Bureaus, Inc.
4200 Wilson Boulevard
Suite 800
Arlington, VA 22203-1838

Telephone: 1-800-955-5100
www.dr.bbb.org/goauto

This program is available in all 50 states and the District of Columbia. Eligibility is limited by vehicle age, mileage, and other factors. General Motors reserves the right to change eligibility limitations and/or discontinue its participation in this program.

STEP THREE — Canadian Owners: In the event that you do not feel your concerns have been addressed after following the procedure outlined in Steps One and Two, General Motors of Canada Limited wants you to be aware of its participation in a no-charge Mediation/Arbitration program. General Motors of Canada Limited has committed to binding arbitration of owner disputes involving factory-related vehicle service claims. The program provides for the review of the facts involved by an impartial third party arbiter, and may include an informal hearing before the arbiter. The program is designed so that the entire dispute settlement process, from the time you file your complaint to the final decision, should be completed in approximately 70 days. We believe our impartial program offers advantages over courts in most jurisdictions because it is informal, quick, and free of charge.

For further information concerning eligibility in the Canadian Motor Vehicle Arbitration Plan (CAMVAP), call toll-free 1-800-207-0685, or call the General Motors Customer Care Centre, 1-800-263-3777 (English), 1-800-263-7854 (French), or write to:

Mediation/Arbitration Program
c/o Customer Care Centre
General Motors of Canada Limited
Mail Code: CA1-163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

The inquiry should be accompanied by the Vehicle Identification Number (VIN).

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DEALER E-PROCESS

Customer Satisfaction Procedure (Mexico)



Did you get the Warranty Extension Plan? This plan is recommended by General Motors to supplement the warranty included with the new vehicle purchase.

See your dealer for details.

Customer Assistance Procedure

Owner satisfaction and goodwill are very important to your dealer and General Motors.

Normally, any problem with the transaction, sale, or usage of the vehicle must be handled by your dealer sales or service departments. However, we recognize that despite the good intentions of all parties involved, sometimes a misunderstanding may occur.

If you have a problem that has not been satisfactorily handled through the normal means, we suggest the following steps:

STEP ONE

Explain your case to your dealer service agent, service manager, dealer sales agent, or sales manager, depending on your case.

Make sure that they have all necessary information. They are interested in your continual satisfaction.

STEP TWO

If you are not satisfied, please contact the general manager or your dealership owner to ask for their help. If they are not able to resolve your case, ask them to contact the right people at General Motors for support, if needed.

STEP THREE

If your case is not resolved in a reasonable amount of time by your dealer, please call the General Motors Customer Assistance Center (CAC) and provide the following information:

- Name
- Address
- Phone number
- Model year
- Brand
- Vehicle Identification Number (VIN)
- Mileage
- Delivery date
- Description of the problem
- Dealership name
- Dealership address

See *Customer Assistance Offices (U.S. and Canada) on page 13-5* or *Customer Assistance Offices (Mexico) on page 13-5*.

Information Provided by:
DEALER E-PROCESS

Customer Assistance Offices (U.S. and Canada)

Buick encourages customers to call the toll-free number for assistance. However, if a customer wishes to write or e-mail Buick, the letter should be addressed to:

United States and Puerto Rico

Buick Customer Assistance Center
P.O. Box 33136
Detroit, MI 48232-5136
www.Buick.com

1-800-521-7300
1-800-832-8425 (For Text Telephone devices (TTYs))
Roadside Assistance:
1-800-252-1112

From U.S. Virgin Islands:

1-800-496-9994

Canada

General Motors of Canada Limited
Customer Care Centre, Mail Code: CA1-163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7
www.gm.ca

1-800-263-3777 (English)
1-800-263-7854 (French)
1-800-263-3830 (For Text Telephone devices (TTYs))
Roadside Assistance:
1-800-268-6800

All Overseas Locations

Please contact the local General Motors Business Unit.

Customer Assistance Offices (Mexico)

To contact the Customer Assistance Center (CAC), use the phone numbers listed in this section. Customer assistance is available Monday through Friday, 08:00 to 20:00 hours, and Saturdays from 09:00 to 15:00 hours.

All e-mail inquiries to the Customer Assistance Center (CAC) should be sent to: cac.buick@gm.com.

Mexico

01-800-466-0818

United States and Canada

1-800-521-7300

Costa Rica

00-800-052-1005

Guatemala

1-800-999-5252

Panama

00-800-052-0001

Dominican Republic

1-888-751-5301

El Salvador

800-6273

Honduras

800-0122-6101

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Customer Assistance for Text Telephone (TTY) Users (U.S. and Canada)

To assist customers who are deaf, hard of hearing, or speech-impaired and who use Text Telephones (TTYs), Buick has TTY equipment available at its Customer Assistance Center. Any TTY user can communicate with Buick by dialing: 1-800-832-8425. TTY users in Canada can dial 1-800-263-3830.

Online Owner Center

Online Owner Experience (U.S.) my.buick.com

The Buick online owner experience is a one-stop resource that allows interaction with Buick and keeps important vehicle-specific information in one place.

Membership Benefits

(Vehicle Information): Download owner manuals and view vehicle-specific how-to videos.

(Maintenance Information): View maintenance schedules, required alerts, OnStar onboard vehicle diagnostic information, and schedule service appointments.

(Service History): View printable dealer-recorded service records and self-recorded service records.

(Preferred Dealer Information): Select a preferred dealer and view dealer location, maps, phone numbers, and hours.

(Warranty Tracking Information): Track the vehicle's warranty information.

(Recall Information): View active recalls or search by Vehicle Identification Number (VIN). See *Vehicle Identification Number (VIN) on page 12-1*.

(Other Account Information): View GM Card, SiriusXM Satellite radio, and OnStar account information.

(Live Chat Support): Chat live with online help representatives.

Visit my.buick.com to register your vehicle.

Buick Owner Centre (Canada) buickowner.ca

Take a trip to the Buick Owner Centre:

- Chat live with online help representatives.
- Use the Vehicle Tools section.
- Access third party enthusiast sites and social media networks.
- Locate owner resources such as lease-end, financing, and warranty information.
- Retrieve your favorite articles, quizzes, tips and multimedia galleries organized into the Features and Auto Care Sections.
- Download the owner manual for your vehicle, quickly and easily.

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- Find the Buick-recommended maintenance services for your vehicle.

GM Mobility Reimbursement Program (U.S. and Canada)

This program is available to qualified applicants for cost reimbursement of eligible aftermarket adaptive equipment required for the vehicle, such as hand controls or a wheelchair/scooter lift for the vehicle.

For more information on the limited offer, visit www.gmmobility.com or call the GM Mobility Assistance Center at 1-800-323-9935. Text Telephone (TTY) users, call 1-800-833-9935.

General Motors of Canada also has a Mobility Program. Call 1-800-GM-DRIVE (463-7483) for details. TTY users call 1-800-263-3830.

Roadside Assistance Program (Mexico)

As a new owner, your vehicle is automatically enrolled in the Roadside Assistance program. The services are available at no cost under the terms and conditions of the program. The Roadside Assistance program is not part of, or included, in the coverage provided by the new vehicle limited warranty.

Roadside Assistance provides assistance to the driver and passengers while driving the vehicle within your city of residence or on any passable road in Mexico, the United States, and Canada.

Services are subject to the limitations described in the following pages. Program coverage varies by country.

Roadside Assistance is available 24 hours a day, 365 days of the year.

This program expires two years from the date of the invoice for the vehicle, regardless of vehicle mileage and changes in vehicle ownership.

For more information about the renewal of this program at the end of its term, contact the Buick Customer Assistance Center at 01-800-466-0818.

Services Provided

- **Flat Tire Change**: If unable to change a flat tire, Roadside Assistance will provide towing service to the nearest authorized Buick dealership. It is the owner's responsibility for the repair or replacement of the tire.

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This service is limited to the transfer of the vehicle to the repair facility.

- **Emergency Fuel Delivery**: Delivery of enough fuel for the vehicle to get to the nearest service station.
- **Lock-Out Service**: Service to unlock the vehicle if you are locked out.
- **Battery Jump Start**: Service to jump start a dead battery.
- ***Emergency Messages**: Transmission of urgent phone messages.
- ***Emergency Calls**: Call for emergency services.
- ***Dealership Location Assistance**: Information regarding addresses and telephone numbers for Buick dealers.
- **Emergency Towing**: Tow to the nearest dealer for warranty service if the vehicle cannot be driven.

  If the vehicle is involved in an accident during the commission of a crime, administrative violation, or breach of traffic regulations, Roadside Assistance will not provide service. When the vehicle is not accessible to be towed, all maneuvers required to access it will be at the owner's expense.

  If the vehicle is in another city outside of your residence, Roadside Assistance is limited to moving the vehicle to the nearest dealer. If you would like the vehicle moved to a different dealer, you will be asked to cover the difference in cost at the time of the move.

  If the vehicle cannot be received by the nearest Buick dealer due to scheduling conflicts, the vehicle will be taken to a safe place where it will remain for up to 48 hours until it can be taken to the dealer. If the storage costs exceed the amount authorized, the owner is responsible to pay the difference at the time of service. Contact Roadside Assistance for more information on authorized amounts.

Information Provided by:
DEALER E-PROCESS

- ***Trip Interruption**: This service is provided if you are prevented from further usage of your vehicle while traveling and it is not possible for the nearest Buick dealership to repair the vehicle the same day, requiring the vehicle to stay at the dealership for a night or more. If this happens, in addition to the previously listed services and prior to confirmation by the dealership, you are entitled to choose one of the following alternatives, within the limits of existing Roadside Assistance program guidelines. If the costs exceed the amount authorized for these services, you must pay the difference at the time of service.

  Roadside Assistance will coordinate hotel accommodations for all vehicle travelers for up to two nights.

  A rental car will be provided for up to two days and the vehicle must be returned to its original destination, excluding vehicles with a carrying capacity greater than 3.5 tons.

  Complimentary Transportation: If you prefer to continue your trip to the intended destination or return to your place of residence, and the trip requires more than eight hours driving on the road, transportation for the driver and passengers by first class bus or coach commercial airline will be provided to a location chosen by Roadside Assistance, depending on availability at the chosen destination. Restrictions apply based on vehicle specifications.

  If you are on the road, taxi service to the nearest bus station or airport will be provided.

- ***Complimentary Transportation for Vehicle Pick Up**: Transportation to pick up your vehicle after repairs are complete. Once the dealer has reported that the vehicle has been repaired, Roadside Assistance will provide bus or commercial airline one-way service (subject to availability) for the person designated by you to collect your vehicle at the dealership's location if you or the designated person are not in the same town or city as the dealership.

*These services are not provided for U.S. or Canada residents. All services provided in the U.S. and Canada are at the owner's expense and will be reimbursed by Roadside Assistance.

Information Provided by: DEALER E-PROCESS

Services Not Included in Roadside Assistance

Roadside Assistance does not cover or reimburse services for the following:

- Events caused by fraud or bad faith by the driver.
- Vehicle immobilization situations due to a major force or unforeseen circumstances, such as natural phenomena of an extraordinary nature, earthquakes, volcanic eruptions, and other cyclonic storms.
- Vehicle immobilization situations arising from car accidents caused by the driver of the vehicle or third parties. This means any occurrence that causes physical injury to the occupants and/or the vehicle caused by external forces.
- Acts of terrorism, riot or uproar, armed forces or police actions which prevent timely delivery of assistance services.
- Food service, beverages, telephone calls, or other extra costs. Accommodation costs apply only to Mexico per the terms and conditions of the Roadside Assistance program.
- Any damage to the vehicle without intent, derived from the services provided.
- Cost of towing a trailer when choosing a Buick dealer that is nearest to the temporary storage facility for the disabled vehicle.
- Cost of all maneuvers required to access the vehicle when it is not available to be towed.
- Cost of fuel provided.

Routine vehicle repair costs are not covered by the Roadside Assistance program. For more information, see your new vehicle warranty.

Contacting Roadside Assistance

Roadside Assistance services are of no cost to you and available 24 hours a day, 365 days a year. Costs are only incurred in situations that exceed the limits of the program, some of which are listed previously in this section.

To contact Roadside Assistance by phone, use the following numbers:

Mexico

01-800-466-0818

United States

1-866-466-8197

Canada

1-800-268-6800

E-mail

asistencia.buick@gm.com

Buick reserves the right to make any changes or discontinue the Roadside Assistance program at any time without notification.

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Roadside Assistance Program (U.S. and Canada)

For U.S.-purchased vehicles, call 1-800-252-1112; (Text Telephone (TTY): 1-888-889-2438).

For Canadian-purchased vehicles, call 1-800-268-6800.

Service is available 24 hours a day, 365 days a year.

Calling for Assistance

When calling Roadside Assistance, have the following information ready:

- Your name, home address, and home telephone number.
- Telephone number of your location.
- Location of the vehicle.
- Model, year, color, and license plate number of the vehicle.
- Odometer reading, Vehicle Identification Number (VIN), and delivery date of the vehicle.
- Description of the problem.

Coverage

Services are provided up to 6 years/ 110 000 km (70,000 mi), whichever comes first.

In the U.S., anyone driving the vehicle is covered. In Canada, a person driving the vehicle without permission from the owner is not covered.

Roadside Assistance is not a part of the New Vehicle Limited Warranty. Buick and General Motors of Canada Limited reserve the right to make any changes or discontinue the Roadside Assistance program at any time without notification.

Buick and General Motors of Canada Limited reserve the right to limit services or payment to an owner or driver if they decide the claims are made too often, or the same type of claim is made many times.

Services Provided

- **Emergency Fuel Delivery:** Delivery of enough fuel for the vehicle to get to the nearest service station.
- **Lock-Out Service:** Service to unlock the vehicle if you are locked out. A remote unlock may be available if you have OnStar®. For security reasons, the driver must present identification before this service is given.
- **Emergency Tow from a Public Road or Highway:** Tow to the nearest Buick dealer for warranty service, or if the vehicle was in a crash and cannot be driven. Assistance is also given when the vehicle is stuck in sand, mud, or snow.

Information Provided by: DEALER E-PROCESS

- **Flat Tire Change:** Service to change a flat tire with the spare tire. The spare tire, if equipped, must be in good condition and properly inflated. It is the owner's responsibility for the repair or replacement of the tire if it is not covered by the warranty.
- **Battery Jump Start:** Service to jump start a dead battery.

Services Not Included in Roadside Assistance

- Impound towing caused by violation of any laws.
- Legal fines.
- Mounting, dismounting, or changing of snow tires, chains, or other traction devices.
- Towing or services for vehicles driven on a non-public road or highway.

Services Specific to Canadian-Purchased Vehicles

- **Fuel delivery:** Reimbursement is approximately $5 Canadian. Diesel fuel delivery may be restricted. Propane and other fuels are not provided through this service.
- **Lock-Out Service:** Vehicle registration is required.
- **Trip Interruption Benefits and Assistance:** Must be over 250 kilometers from where your trip was started to qualify. General Motors of Canada Limited requires pre-authorization, original detailed receipts, and a copy of the repair orders. Once authorization has been received, the Roadside Assistance advisor will help you make arrangements and explain how to receive payment.
- **Alternative Service:** If assistance cannot be provided right away, the Roadside Assistance advisor may give permission to get local emergency road service. You will receive payment, up to $100, after sending the original receipt to Roadside Assistance. Mechanical failures may be covered, however any cost for parts and labor for repairs not covered by the warranty are the owner responsibility.

Scheduling Service Appointments (U.S. and Canada)

When the vehicle requires warranty service, contact your dealer and request an appointment. By scheduling a service appointment and advising the service consultant of your transportation needs, your dealer can help minimize your inconvenience.

If the vehicle cannot be scheduled into the service department immediately, keep driving it until it can be scheduled for service,

DEALER E-PROCESS

unless, of course, the problem is safety related. If it is, please call your dealership, let them know this, and ask for instructions.

If your dealer requests you to bring the vehicle for service, you are urged to do so as early in the work day as possible to allow for same-day repair.

Courtesy Transportation Program (U.S. and Canada)

To enhance your ownership experience, we and our participating dealers are proud to offer Courtesy Transportation, a customer support program for vehicles with the Bumper-to-Bumper (Base Warranty Coverage period in Canada), extended powertrain, and/or hybrid-specific warranties in both the U.S. and Canada.

Several Courtesy Transportation options are available to assist in reducing inconvenience when warranty repairs are required.

Courtesy Transportation is not a part of the New Vehicle Limited Warranty. A separate booklet entitled “Limited Warranty and Owner Assistance Information” furnished with each new vehicle provides detailed warranty coverage information.

Transportation Options

Warranty service can generally be completed while you wait. However, if you are unable to wait, GM helps to minimize inconvenience by providing several transportation options. Depending on the circumstances, your dealer can offer one of the following:

Shuttle Service

Shuttle service is the preferred means of offering Courtesy Transportation. Dealers may provide shuttle service to get you to your destination with minimal interruption of your daily schedule. This includes one-way or round-trip shuttle service within reasonable time and distance parameters of your dealer's area.

Public Transportation or Fuel Reimbursement

If the vehicle requires overnight warranty repairs, and public transportation is used instead of your dealer's shuttle service, the expense must be supported by original receipts and can only be up to the maximum amount allowed by GM for shuttle service. In addition, for U.S. customers, should you arrange transportation through a friend or relative, limited reimbursement for reasonable fuel expenses may be available. Claim amounts should reflect actual costs and be supported by original receipts. See your dealer for information regarding the allowance amounts for reimbursement of fuel or other transportation costs.

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Courtesy Rental Vehicle

Your dealer may arrange to provide you with a courtesy rental vehicle or reimburse you for a rental vehicle that you obtain if the vehicle is kept for an overnight warranty repair. Rental reimbursement will be limited and must be supported by original receipts. This requires that you sign and complete a rental agreement and meet state/provincial, local, and rental vehicle provider requirements. Requirements vary and may include minimum age requirements, insurance coverage, credit card, etc. You are responsible for fuel usage charges and may also be responsible for taxes, levies, usage fees, excessive mileage, or rental usage beyond the completion of the repair.

It may not be possible to provide a like vehicle as a courtesy rental.

Additional Program Information

All program options, such as shuttle service, may not be available at every dealer. Please contact your dealer for specific information about availability. All Courtesy Transportation arrangements will be administered by appropriate dealer personnel.

General Motors reserves the right to unilaterally modify, change, or discontinue Courtesy Transportation at any time and to resolve all questions of claim eligibility pursuant to the terms and conditions described herein at its sole discretion.

Collision Damage Repair (U.S. and Canada)

If the vehicle is involved in a collision and it is damaged, have the damage repaired by a qualified technician using the proper equipment and quality replacement parts. Poorly performed collision repairs diminish the vehicle resale value, and safety performance can be compromised in subsequent collisions.

Collision Parts

Genuine GM Collision parts are new parts made with the same materials and construction methods as the parts with which the vehicle was originally built. Genuine GM Collision parts are the best choice to ensure that the vehicle's designed appearance, durability, and safety are preserved. The use of Genuine GM parts can help maintain the GM New Vehicle Limited Warranty.

Recycled original equipment parts may also be used for repair. These parts are typically removed from vehicles that were total losses in prior crashes. In most cases, the parts being recycled are from undamaged sections of the vehicle. A recycled original equipment GM part may be an acceptable choice to maintain the vehicle's originally designed appearance and safety

DEALER E-PROCESS

performance; however, the history of these parts is not known. Such parts are not covered by the GM New Vehicle Limited Warranty, and any related failures are not covered by that warranty.

Aftermarket collision parts are also available. These are made by companies other than GM and may not have been tested for the vehicle. As a result, these parts may fit poorly, exhibit premature durability/ corrosion problems, and may not perform properly in subsequent collisions. Aftermarket parts are not covered by the GM New Vehicle Limited Warranty, and any vehicle failure related to such parts is not covered by that warranty.

Repair Facility

GM also recommends that you choose a collision repair facility that meets your needs before you ever need collision repairs. Your dealer may have a collision repair center with GM-trained technicians and state-of-the-art equipment, or be able to recommend a collision repair center that has GM-trained technicians and comparable equipment.

Insuring the Vehicle

Protect your investment in the GM vehicle with comprehensive and collision insurance coverage. There are significant differences in the quality of coverage afforded by various insurance policy terms. Many insurance policies provide reduced protection to the GM vehicle by limiting compensation for damage repairs through the use of aftermarket collision parts. Some insurance companies will not specify aftermarket collision parts. When purchasing insurance, we recommend that you ensure that the vehicle will be repaired with GM original equipment collision parts. If such insurance coverage is not available from your current insurance carrier, consider switching to another insurance carrier.

If the vehicle is leased, the leasing company may require you to have insurance that ensures repairs with Genuine GM Original Equipment Manufacturer (OEM) parts or Genuine Manufacturer replacement parts. Read the lease carefully, as you may be charged at the end of the lease for poor quality repairs.

If a Crash Occurs

If there has been an injury, call emergency services for help. Do not leave the scene of a crash until all matters have been taken care of. Move the vehicle only if its position puts you in danger, or you are instructed to move it by a police officer.

Give only the necessary information to police and other parties involved in the crash.

For emergency towing see *Roadside Assistance Program (Mexico) on page 13-7* or *Roadside Assistance Program (U.S. and Canada) on page 13-11*.

Information Provided by: DEALER E-PROCESS

Gather the following information:

- Driver name, address, and telephone number.
- Driver license number.
- Owner name, address, and telephone number.
- Vehicle license plate number.
- Vehicle make, model, and model year.
- Vehicle Identification Number (VIN).
- Insurance company and policy number.
- General description of the damage to the other vehicle.

Choose a reputable repair facility that uses quality replacement parts. See “Collision Parts” earlier in this section.

If the airbag has inflated, see *What Will You See after an Airbag Inflates? on page 3-28*.

Managing the Vehicle Damage Repair Process

In the event that the vehicle requires damage repairs, GM recommends that you take an active role in its repair. If you have a pre-determined repair facility of choice, take the vehicle there, or have it towed there. Specify to the facility that any required replacement collision parts be original equipment parts, either new Genuine GM parts or recycled original GM parts. Remember, recycled parts will not be covered by the GM vehicle warranty.

Insurance pays the bill for the repair, but you must live with the repair. Depending on your policy limits, your insurance company may initially value the repair using aftermarket parts. Discuss this with the repair professional, and insist on Genuine GM parts. Remember, if the vehicle is leased, you may be obligated to have the vehicle repaired with Genuine GM parts, even if your insurance coverage does not pay the full cost.

If another party's insurance company is paying for the repairs, you are not obligated to accept a repair valuation based on that insurance company's collision policy repair limits, as you have no contractual limits with that company. In such cases, you can have control of the repair and parts choices as long as the cost stays within reasonable limits.

Service Publications Ordering Information

Service Manuals

Service Manuals have the diagnosis and repair information on the engines, transmission, axle, suspension, brakes, electrical, steering, body, etc.

Service Bulletins

Service Bulletins give additional technical service information needed to knowledgeably service General Motors cars and trucks.

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Each bulletin contains instructions to assist in the diagnosis and service of the vehicle.

Owner Information

Owner publications are written specifically for owners and intended to provide basic operational information about the vehicle. The Owner Manual includes the Maintenance Schedule for all models.

In-Portfolio: Includes a Portfolio, Owner Manual, and Warranty Manual.

RETAIL SELL PRICE:
$35.00 (U.S.) plus handling and shipping fees.

Without Portfolio: Owner Manual only.

RETAIL SELL PRICE:
$25.00 (U.S.) plus handling and shipping fees.

Current and Past Models

Technical Service Bulletins and Manuals are available for current and past model GM vehicles.

ORDER TOLL FREE:
1-800-551-4123 Monday – Friday
8:00 AM – 6:00 PM Eastern Time

For Credit Card Orders Only (VISA-MasterCard-Discover), see Helm, Inc. at: www.helminc.com.

Or write to:

Helm, Incorporated
Attention: Customer Service
47911 Halyard Drive
Plymouth, MI 48170

Prices are subject to change without notice and without incurring obligation. Allow ample time for delivery.

All listed prices are quoted in U.S. funds. Make checks payable in U.S. funds.

Reporting Safety Defects

Reporting Safety Defects to the United States Government

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying General Motors.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign.

Information Provided by:
DEALER E-PROCESS

However, NHTSA cannot become involved in individual problems between you, your dealer, or General Motors.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to *http://www.safercar.gov;* or write to:

Administrator, NHTSA
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

You can also obtain other information about motor vehicle safety from *http://www.safercar.gov*.

Reporting Safety Defects to the Canadian Government

If you live in Canada, and you believe that the vehicle has a safety defect, notify Transport Canada immediately, and notify General Motors of Canada Limited. Call Transport Canada at 1-800-333-0510 or write to:

Transport Canada
Road Safety Branch
80 rue Noel
Gatineau, QC J8Z 0A1

Reporting Safety Defects to General Motors

In addition to notifying NHTSA (or Transport Canada) in a situation like this, please notify General Motors.

Call 1-800-521-7300, or write:

Buick Customer Assistance Center
P.O. Box 33136
Detroit, MI 48232-5136

In Canada, call 1-800-263-3777 (English) or 1-800-263-7854 (French), or write:

General Motors of Canada Limited
Customer Care Centre, Mail Code: CA1-163-005
1908 Colonel Sam Drive
Oshawa, Ontario L1H 8P7

Information Provided by:
DEALER E-PROCESS

Vehicle Data Recording and Privacy

The vehicle has a number of computers that record information about the vehicle's performance and how it is driven. For example, the vehicle uses computer modules to monitor and control engine and transmission performance, to monitor the conditions for airbag deployment and deploy them in a crash, and, if equipped, to provide antilock braking to help the driver control the vehicle. These modules may store data to help the dealer technician service the vehicle. Some modules may also store data about how the vehicle is operated, such as rate of fuel consumption or average speed. These modules may retain personal preferences, such as radio presets, seat positions, and temperature settings.

Event Data Recorders

This vehicle is equipped with an event data recorder (EDR). The main purpose of an EDR is to record, in certain crash or near crash-like situations, such as an air bag deployment or hitting a road obstacle, data that will assist in understanding how a vehicle's systems performed. The EDR is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less. The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- Whether or not the driver and passenger safety belts were buckled/fastened;
- How far (if at all) the driver was depressing the accelerator and/or brake pedal; and,
- How fast the vehicle was traveling.

These data can help provide a better understanding of the circumstances in which crashes and injuries occur. NOTE: EDR data are recorded by your vehicle only if a non-trivial crash situation occurs; no data are recorded by the EDR under normal driving conditions and no personal data (e.g., name, gender, age, and crash location) are recorded. However, other parties, such as law enforcement, could combine the EDR data with the type of personally identifying data routinely acquired during a crash investigation.

To read data recorded by an EDR, special equipment is required, and access to the vehicle or the EDR is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have the special equipment, can read the information if they have access to the vehicle or the EDR.

GM will not access this data or share it with others except: with the consent of the vehicle owner or,

Information Provided by: DEALER E-PROCESS

if the vehicle is leased, with the consent of the lessee; in response to an official request by police or similar government office; as part of GM's defense of litigation through the discovery process; or, as required by law. Data that GM collects or receives may also be used for GM research needs or may be made available to others for research purposes, where a need is shown and the data is not tied to a specific vehicle or vehicle owner.

OnStar®

If the vehicle is equipped with OnStar® and has an active subscription, additional data may be collected through the OnStar system. This includes information about the vehicle's operation; about collisions involving the vehicle; the use of the vehicle and its features; and, in certain situations, the location and approximate GPS speed of the vehicle. Refer to the OnStar Terms and Conditions and Privacy Statement on the OnStar website.

Infotainment System

If the vehicle is equipped with a navigation system as part of the infotainment system, use of the system may result in the storage of destinations, addresses, telephone numbers, and other trip information. See the infotainment manual for information on stored data and for deletion instructions.

Radio Frequency Identification (RFID)

RFID technology is used in some vehicles for functions such as tire pressure monitoring and ignition system security, as well as in connection with conveniences such as Remote Keyless Entry (RKE) transmitters for remote door locking/unlocking and starting, and in-vehicle transmitters for garage door openers. RFID technology in GM vehicles does not use or record personal information or link with any other GM system containing personal information.

Radio Frequency Statement

This vehicle has systems that operate on a radio frequency that comply with Part 15 of the Federal Communications Commission (FCC) rules and with Industry Canada Standards RSS-GEN/210/220/310.

Operation is subject to the following two conditions:

1. The device may not cause harmful interference.
2. The device must accept any interference received, including interference that may cause undesired operation of the device.

Changes or modifications to any of these systems by other than an authorized service facility could void authorization to use this equipment.

Information Provided by: DEALER E-PROCESS

OnStar

OnStar Overview
OnStar Overview 14-1

OnStar Services
Emergency 14-2
Security 14-2
Navigation 14-2
Connections 14-3
Diagnostics 14-5

OnStar Additional Information
OnStar Additional Information 14-5

OnStar Overview






If equipped, this vehicle has a comprehensive, in-vehicle system that can connect to a live Advisor for Emergency, Security, Navigation, Connection, and Diagnostic Services.

The OnStar system status light is next to the OnStar buttons. If the status light is:

- Solid Green: System is ready.
- Flashing Green: On a call.
- Red: Indicates a problem.

Press On or call 1-888-4-ONSTAR (1-888-466-7827) to speak to an Advisor.

Press to:

- Make a call, end a call, or answer an incoming call.
- Give OnStar Hands-Free Calling voice commands.
- Give OnStar Turn-by-Turn Navigation voice commands. Requires the available Directions and Connections service plan.

Press On to connect to a live Advisor to:

- Verify account information or update contact information.
- Get driving directions. Requires the available Directions and Connections service plan.
- Receive On-Demand Diagnostics for a check of the vehicle's key operating systems.
- Receive Roadside Assistance.

Information Provided by:
DEALER E-PROCESS

Press the OnStar Emergency button SOS to get a priority connection to an Emergency Advisor available 24/7 to:

- Get help for an emergency.
- Be a Good Samaritan or respond to an AMBER Alert.
- Get crisis assistance and evacuation routes.

OnStar Services

Emergency

With Automatic Crash Response, the built-in system can automatically connect to help in most crashes, even if help cannot be requested.

Press SOS to connect to an Emergency Advisor. GPS technology is used to identify the vehicle location and can provide critical information to emergency personnel. The Advisor is also trained to offer critical assistance in emergency situations before first responders arrive.

Security

OnStar provides services like Stolen Vehicle Assistance, Remote Ignition Block, and Roadside Assistance, if equipped. OnStar can unlock the vehicle doors remotely, if equipped with automatic door locks, and can help police locate the vehicle if it is stolen.

Navigation

OnStar navigation requires the Directions and Connections service plan.

Press On to receive directions or have them sent to the vehicle navigation screen, if equipped. Destinations can also be forwarded to the vehicle from MapQuest.com. The OnStar mapping database is continuously updated. For coverage maps, see www.onstar.com (U.S.) www.onstar.ca (Canada).

Turn-by-Turn Navigation

1. Press On to connect to a live Advisor.
2. Request directions.
3. Directions are downloaded to the vehicle.
4. Follow the voice-guided commands.

Information Provided by: DEALER E-PROCESS

Using Voice Commands During a Planned Route

Cancel Route

1. Press . System responds: “OnStar ready,” then a tone. Say “Cancel route.” System responds: “Do you want to cancel directions?”
2. Say “Yes.” System responds: “OK, request completed, thank you, goodbye.”

Route Preview

1. Press . System responds: “OnStar ready,” then a tone.
2. Say “Route preview.” System responds with the next three maneuvers.
3. Say “Goodbye.” Exits voice commands.

Repeat

1. Press . System responds: “OnStar ready,” then a tone.
2. Say “Repeat.” System responds with the last direction given, then responds with “OnStar ready,” then a tone.
3. Say “Goodbye.” Exits voice commands.

Get My Destination

1. Press . System responds: “OnStar ready,” then a tone.
2. Say “Get my destination.” System responds with address and the distance to the destination, then responds with “OnStar ready,” then a tone.
3. Say “Goodbye.” Exits voice commands.

Other Navigation Services Available from OnStar

OnStar eNav: Allows subscribers to send destinations from MapQuest.com to their Turn-by-Turn Navigation or screen-based navigation system. When ready, the directions will be downloaded to the vehicle.

Destination Download: Press , then request the Advisor to download directions to the navigation system in the vehicle. After the call ends, press the “Go” button on the navigation screen to begin driving directions.

Destinations can also be downloaded on the go. For information about eNav, Destination Download, and coverage maps see www.onstar.com (U.S.), www.onstar.ca (Canada).

Connections

OnStar Hands-Free Calling allows calls to be made and received from the vehicle. The vehicle can also be controlled from a cell phone through the OnStar RemoteLink mobile app. For coverage maps, see www.onstar.com (U.S.), www.onstar.ca (Canada).

Hands-Free Calling

1. Press . System responds: “OnStar ready.”

Information Provided by: DEALER E-PROCESS

2. Say “Call.” System responds: “Please say the name or number to call.”
3. Say the entire number without pausing, including a “1” and the area code. System responds: “OK calling.”

Calling 911 Emergency

1. Press . The system responds “OnStar Ready,” followed by a tone.
2. Say “Call.” The system responds “Please say the name or number to call.”
3. Say “911” without pausing. The system responds “911.”
4. Say “Call.” The system responds “OK, dialing 911.”

Retrieve My Number

1. Press . System responds: “OnStar ready.”
2. Say “My number.” System responds: “Your OnStar Hands-Free Calling number is.”

End a Call

Press . System responds: “Call ended.”

Store a Name Tag for Speed Dialing

1. Press . System responds: “OnStar ready.”
2. Say “Store.” System responds: “Please say the number you would like to store.”
3. Say the entire number without pausing. System responds: “Please say the name tag.”
4. Pick a name tag. System responds: “About to store <name tag>. Does that sound OK?”
5. Say “Yes” or say “No” to try again. System responds: “OK, storing <name tag>.”

Place a Call Using a Stored Number

1. Press . System responds: “OnStar ready.”
2. Say “Call <name tag>.” System responds: “OK, calling <name tag>.”

Verify Minutes and Expiration

Press and say “Minutes” then “Verify” to check how many minutes remain and their expiration date.

OnStar Mobile App

Download the OnStar RemoteLink mobile app to select Apple, Android and BlackBerry devices to check vehicle fuel level, oil life, or tire pressure; to start the vehicle (if equipped) or unlock it; or to connect to an OnStar Advisor. For OnStar RemoteLink information and compatibility, see www.onstar.com (U.S.), www.onstar.ca (Canada).

Information Provided by: DEALER E-PROCESS

Diagnostics

OnStar Vehicle Diagnostics will perform a vehicle check every month. It will check the engine, transmission, antilock brakes, and major vehicle systems. It also checks the tire pressures, if the vehicle is equipped with the Tire Pressure Monitoring System. If a diagnostics check is needed between e-mails, press , and an Advisor can run a check.

OnStar Additional Information

Transferring Service

Press to request account transfer eligibility information. The Advisor can assist in canceling or removing account information. If OnStar receives information that vehicle ownership has changed, OnStar may send a voice message to the vehicle, requesting updated account information.

Reactivation for Subsequent Owners

Press and follow the prompts to speak to an Advisor as soon as possible after acquiring the vehicle. The Advisor will update vehicle records and will explain the OnStar service offers and options available.

How OnStar Service Works

Automatic Crash Response, Emergency Services, Crisis Assist, Stolen Vehicle Assistance, Vehicle Diagnostics, Remote Door Unlock, Roadside Assistance, Turn-by-Turn Navigation, and Hands-Free Calling are available on most vehicles. Not all OnStar services are available everywhere or on all vehicles. For more information, a full description of OnStar services, system limitations, and OnStar terms and conditions:

- In the U.S. see www.onstar.com (U.S.) or call 1-888-4-ONSTAR. (1-888-466-7827).
- In Canada see www.onstar.ca (Canada) or call 1-888-4-ONSTAR. (1-888-466-7827).
- TTY 1-877-248-2080.
- Press to speak with an Advisor.

Information Provided by: DEALER E-PROCESS

OnStar services require a vehicle electrical system, wireless service, and GPS satellite technologies to be available and operating for features to function properly. These systems may not operate if the battery is discharged or disconnected.

OnStar service cannot work unless your vehicle is in a place where OnStar has an agreement with a wireless service provider for service in that area, and the wireless service provider has coverage, network capacity, reception, and technology compatible with OnStar service. Service involving location information about the vehicle cannot work unless GPS signals are available, unobstructed, and compatible with the OnStar hardware. OnStar service may not work if the OnStar equipment is not properly installed or it has not been properly maintained. If equipment or software is added, connected, or modified, OnStar service may not work. Other problems beyond the control of OnStar may prevent service such as hills, tall buildings, tunnels, weather, electrical system design and architecture of the vehicle, damage to the vehicle in a crash, or wireless phone network congestion or jamming.

See *Radio Frequency Statement on page 13-20* for information regarding Part 15 of the Federal Communications Commission (FCC) rules and Industry Canada Standards RSS-GEN/210/220/310.

Services for People with Disabilities

Advisors provide services to help subscribers with physical disabilities and medical conditions.

Press  for help with:

- Locating a gas station with an attendant to pump gas.
- Finding a hotel, restaurant, etc., that meets accessibility needs.
- Providing directions to the closest hospital or pharmacy in urgent situations.

TTY Users

OnStar has the ability to communicate to the deaf, hard-of-hearing, or speech-impaired customers while in the vehicle. The available dealer-installed TTY system can provide in-vehicle access to all of the OnStar services, except Virtual Advisor and OnStar Turn-by-Turn Navigation.

OnStar.com (U.S.) or OnStar.ca (Canada)

The website provides access to account information, allows management of the OnStar subscription, and viewing of videos of each service. Get subscription plan pricing and sign up for OnStar Vehicle Diagnostics. Click on the “My Account” tab on the home page. The website navigation and services provided may vary by country.

Information Provided by: DEALER E-PROCESS

OnStar Personal Identification Number (PIN)

A PIN is needed to access some of the OnStar services, like Remote Door Unlock and Stolen Vehicle Assistance. You will be prompted to change the PIN the first time when speaking with an Advisor. To change the OnStar PIN, call OnStar and provide the Advisor with the current number.

Warranty

OnStar equipment may be warranted as part of the New Vehicle Limited Warranty. The manufacturer of the vehicle furnishes detailed warranty information.

Languages

The vehicle can be programmed to respond in English, French or Spanish. Press and ask an Advisor. Advisors can speak English, French or Spanish.

Potential Issues

OnStar cannot perform Remote Door Unlock or Stolen Vehicle Assistance after the vehicle has been off continuously for five days. After five days, OnStar can contact Roadside Assistance and a locksmith to help gain access to the vehicle.

Global Positioning System (GPS)

- Obstruction of the GPS can occur in a large city with tall buildings; in parking garages; around airports; in tunnels, underpasses, or parking garages; or in an area with very dense trees. If GPS signals are not available, the OnStar system should still operate to call OnStar. However, OnStar could have difficulty identifying the exact location.
- In emergency situations, OnStar can use the last stored GPS location to send to emergency responders.
- A temporary loss of GPS can cause loss of the ability to send a Turn-by-Turn Navigation route. The Advisor may give a verbal route or may ask for a call back after the vehicle is driven into an open area.

Cellular and GPS Antennas

Avoid placing items over or near the antenna to prevent blocking cellular and GPS signal reception. Cellular reception is required for OnStar to send remote signals to the vehicle.

Unable to Connect to OnStar Message

If there is limited cellular coverage or the cellular network has reached maximum capacity, this message may come on. Press to try the call again or try again after driving a few miles into another cellular area.

Information Provided by: DEALER E-PROCESS

Vehicle and Power Issues

OnStar services require a vehicle electrical system, wireless service, and GPS satellite technologies to be available and operating for features to function properly. These systems may not operate if the battery is discharged or disconnected.

Add-on Electrical Equipment

The OnStar system is integrated into the electrical architecture of the vehicle. Do not add any electrical equipment. See *Add-On Electrical Equipment on page 9-47*. Added electrical equipment may interfere with the operation of the OnStar system and cause it to not operate.

Privacy

The complete OnStar Privacy Statement may be found at www.onstar.com (U.S.), or www.onstar.ca (Canada). Privacy-sensitive users of wireless communications are cautioned that the privacy of any information sent via wireless cellular communications cannot be assured. Third parties may unlawfully intercept or access transmissions and private communications without consent.

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Information Provided by:
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A

About Driving the Vehicle iv
Accessories and
Modifications 10-2
Accessory Power 9-19
Add-On Electrical
Equipment 9-47
Additional Information
OnStar® 14-5
Adjustments
Lumbar, Front Seats 3-4
Air Cleaner/Filter, Engine 10-10
Air Filter, Passenger
Compartment 8-6
Air Intake 8-6
Air Vents 8-6
Airbag System
Check 3-34
How Does an Airbag
Restrain? 3-28
Passenger Sensing
System 3-29
What Makes an Airbag
Inflate? 3-27
Airbag System (cont'd)
What Will You See after an
Airbag Inflates? 3-28
When Should an Airbag
Inflate? 3-26
Where Are the Airbags? 3-25
Airbags
Adding Equipment to the
Vehicle 3-34
Passenger Status Indicator ... 5-12
Readiness Light 5-12
Servicing Airbag-Equipped
Vehicles 3-33
System Check 3-23
Alarm
Vehicle Security 2-9
All-Wheel Drive 10-20, 9-26
AM-FM Radio 7-7
Antenna
Multi-band 7-11
Antilock Brake
System (ABS) 9-26
Warning Light 5-17
Appearance Care
Exterior 10-67
Interior 10-70
Armrest
Front Seat 3-8
Rear Seat 3-14
Assistance Program,
Roadside 13-7, 13-11
Audio Players 7-11
CD 7-11
Audio System
Radio Reception 7-10
Theft-Deterrent Feature 7-2
Automatic
Door Locks 2-7
Headlamp System 6-3
Transmission 9-23
Transmission Fluid 10-10
Automatic Transmission
Manual Mode 9-25
Shift Lock Control
Function Check 10-20
Auxiliary
Devices 7-13

Information Provided by:
DEALER E-PROCESS

B

Battery 10-19
Jump Starting 10-61
Power Protection 6-6
Voltage and Charging Messages 5-26
Blade Replacement, Wiper ... 10-21
Blind Spot Mirrors 2-12
Bluetooth 7-16
Brake
System Warning Light 5-16
Brakes 10-17
Antilock 9-26
Assist 9-27
Fluid 10-18
Parking 9-27
System Messages 5-26
Braking 9-4
Break-In, New Vehicle 9-15
Bulb Replacement 10-26
Halogen Bulbs 10-23
Headlamp Aiming 10-23
Headlamps 10-23
Headlamps, Front Turn Signal, and Parking Lamps 10-24
License Plate Lamps 10-26
Buying New Tires 10-50

C

Calibration 5-5
California
Fuel Requirements 9-43
Perchlorate Materials Requirements 10-2
Warning 10-2
Camera, Rear Vision 9-38
Canadian Vehicle Owners iii
Capacities and Specifications 12-2
Carbon Monoxide
Engine Exhaust 9-22
Liftgate 2-8
Winter Driving 9-8
Cargo
Cover 4-3
Management System 4-3
Cautions, Danger, and Warnings iv
CD Player 7-11
Center Console Storage 4-3
Chains, Tire 10-55
Charging System Light 5-13
Check
Engine Light 5-14
Ignition Transmission Lock 10-21
Child Restraints
Infants and Young Children 3-37
Lower Anchors and Tethers for Children 3-43
Older Children 3-35
Securing 3-48, 3-51
Systems 3-40
Circuit Breakers 10-27
Cleaning
Exterior Care 10-67
Interior Care 10-70

Information Provided by: DEALER E-PROCESS

Climate Control Systems 8-1
Air Conditioning 8-1
Dual Automatic 8-3
Heating 8-1
Clock 5-6
Cluster, Instrument 5-9
Collision Damage Repair 13-14
Compact Spare Tire 10-61
Compass 5-5
Messages 5-26
Connections
OnStar® 14-3
Control of a Vehicle 9-4
Convenience Net 4-4
Convex Mirrors 2-11
Coolant
Engine 10-12
Engine Temperature
Gauge 5-11
Engine Temperature
Warning Light 5-19
Cooling System 10-11
Engine Messages 5-27
Courtesy Lamps 6-5
Courtesy Transportation
Program 13-13
Cover
Cargo 4-3
Cruise Control 9-32
Light 5-22
Messages 5-26
Cupholders 4-2
Customer Assistance 13-6
Offices 13-5
Text Telephone (TTY)
Users 13-6
Customer Information
Service Publications
Ordering Information 13-16
Customer Satisfaction
Procedure 13-2, 13-4

D

Damage Repair, Collision 13-14
Danger, Warnings, and
Cautions iv
Data Recorders, Event 13-19
Daytime Running
Lamps (DRL) 6-2
Indicator Light 5-21
Defensive Driving 9-4
Devices
Auxiliary 7-13
Diagnostics
OnStar® 14-5
Distracted Driving 9-3
Dome Lamps 6-5
Door
Ajar Messages 5-27
Locks 2-6
Power Locks 2-7
Drive Belt Routing, Engine 12-4
Drive Systems
All-Wheel Drive 10-20, 9-26
Driver Behavior 9-2
Driver Information
Center (DIC) 5-22
Driving
Defensive 9-4
Drunk 9-4
Environment 9-2
For Better Fuel Economy 1-20
Highway Hypnosis 9-7
Hill and Mountain Roads 9-7
If the Vehicle is Stuck 9-10
Loss of Control 9-6
Off-Road Recovery 9-5

Information Provided by:
DEALER E-PROCESS

Driving (cont'd)
Vehicle Load Limits 9-10
Wet Roads 9-6
Winter 9-8
Driving the Vehicle iv
Dual Automatic Climate
Control System 8-3

E

Electrical Equipment,
Add-On 9-47
Electrical System
Engine Compartment
Fuse Block 10-28
Fuses and Circuit
Breakers 10-27
Instrument Panel Fuse
Block 10-31
Overload 10-27
Rear Compartment Fuse
Block 10-33
Emergency
OnStar® 14-2
Engine
Air Cleaner/Filter 10-10
Check and Service Engine
Soon Light 5-14
Compartment Overview 10-6
Coolant 10-12
Coolant Temperature
Gauge 5-11
Coolant Temperature
Warning Light 5-19
Cooling System 10-11
Cooling System Messages ...5-27
Drive Belt Routing 12-4
Exhaust 9-22
Heater 9-18
Oil Life System 10-9
Oil Messages 5-27
Overheating 10-15
Power Messages 5-27
Pressure Light 5-20
Running While Parked 9-23
Starting 9-17
Entry Lighting 6-6
Event Data Recorders 13-19
Exit Lighting 6-6
Extender, Safety Belt 3-21
Exterior Lamp Controls 6-1

F

Features
Memory 1-8
Filter,
Engine Air Cleaner 10-10
First Aid Kit 4-5
Flash-to-Pass 6-2
Flashers, Hazard Warning 6-3
Flat Tire 10-55
Changing 10-57
Floor Mats 10-73
Fluid
Automatic Transmission 10-10
Brakes 10-18
Washer 10-16
Fog Lamps
Front 6-4

Information Provided by:
DEALER E-PROCESS

Folding Mirrors 2-12
Folding Seatback 3-9
Forward Collision Alert
(FCA) System 9-34
Front Fog Lamp
Light 5-22
Front Seat Armrest 3-8
Front Seats
Adjustment 3-3
Heated 3-8
Fuel 9-42
Additives 9-43
Economy Driving 1-20
Filling a Portable Fuel
Container 9-46
Filling the Tank 9-44
Foreign Countries 9-43
Gasoline Specifications 9-43
Gauge 5-10
Low Fuel Warning Light 5-21
Recommended 9-42
Requirements, California 9-43
System Messages 5-28
Fuses
Engine Compartment
Fuse Block 10-28
Fuses and Circuit
Breakers 10-27
Instrument Panel Fuse
Block 10-31
Rear Compartment Fuse
Block 10-33

G

Gasoline
Specifications 9-43
Gauges
Engine Coolant
Temperature 5-11
Fuel 5-10
Odometer 5-10
Speedometer 5-10
Tachometer 5-10
Trip Odometer 5-10
Warning Lights and
Indicators 5-8
General Information
Service and Maintenance 11-1
Towing 9-47
Vehicle Care 10-2
GM Mobility Reimbursement
Program 13-7

H

Halogen Bulbs 10-23
Hazard Warning Flashers 6-3
Head Restraints 3-2
Headlamps
Aiming 10-23
Automatic 6-3
Bulb Replacement 10-23
Daytime Running
Lamps (DRL) 6-2
Daytime Running Lamps
(DRL) Indicator Light 5-21
Flash-to-Pass 6-2
High-Beam On Light 5-21
High/Low Beam Changer 6-2
Lamps On Reminder 5-22

Information Provided by:
DEALER E-PROCESS

Heated
Steering Wheel 5-3
Heated Front Seats 3-8
Heated Mirrors 2-12
Heater
Engine 9-18
Heating and Air Conditioning ... 8-1
High-Beam On Light 5-21
Highway Hypnosis 9-7
Hill and Mountain Roads 9-7
Hill Start Assist (HSA) 9-28
Hood 10-4
Horn 5-3
How to Wear Safety Belts
Properly 3-15

I

Ignition Positions 9-15
Ignition Transmission Lock
Check 10-21
Immobilizer 2-10
Light 5-21
Indicator
Vehicle Ahead 5-18
Infants and Young Children,
Restraints 3-37
Infotainment 7-1
Infotainment System 13-20
Instrument Cluster 5-9
Instrument Panel
Storage Area 4-1
Introduction iii

J

Jump Starting 10-61

K

Keyless Entry
Remote (RKE) System 2-3
Keys 2-1

L

Labeling, Tire Sidewall 10-37
Lamps
Courtesy 6-5
Daytime Running (DRL) 6-2
Dome 6-5
Exterior Controls 6-1
Front Fog 6-4
Lamps (cont'd)
Headlamps, Front Turn
Signal, and Parking
Lamps 10-24
License Plate 10-26
Malfunction Indicator 5-14
Messages 5-28
On Reminder 5-22
Reading 6-5
Lane Departure Warning 9-40
Lane Departure Warning
Light 5-18
Lap-Shoulder Belt 3-16
LATCH System
Replacing Parts after a
Crash 3-48
LATCH, Lower Anchors and
Tethers for Children 3-43
Liftgate
Carbon Monoxide 2-8
Lighting
Entry 6-6
Exit 6-6
Illumination Control 6-5

Information Provided by:
DEALER E-PROCESS

Lights
Airbag Readiness 5-12
Antilock Brake System (ABS) Warning 5-17
Brake System Warning 5-16
Charging System 5-13
Cruise Control 5-22
Daytime Running Lamps (DRL) 5-21
Engine Coolant Temperature Warning 5-19
Engine Oil Pressure 5-20
Flash-to-Pass 6-2
Front Fog Lamp 5-22
High-Beam On 5-21
High/Low Beam Changer 6-2
Immobilizer 5-21
Lane Departure Warning 5-18
Low Fuel Warning 5-21
Safety Belt Reminders 5-11
StabiliTrak® OFF 5-18
Tire Pressure 5-20
Traction Control System (TCS)/StabiliTrak® 5-19
Traction Off 5-18
Warning, Power Steering 5-17
Locks
Automatic Door 2-7
Door 2-6
Power Door 2-7
Safety 2-7
Loss of Control 9-6
Low Fuel Warning Light 5-21
Lower Anchors and Tethers for Children (LATCH System) 3-43
Lumbar Adjustment 3-4
Front Seats 3-4

M

Maintenance Records 11-13
Maintenance Schedule
Recommended Fluids and Lubricants 11-11
Malfunction Indicator Lamp 5-14
Manual Mode 9-25
Memory Features 1-8
Memory Seats 3-6
Messages
Battery Voltage and Charging 5-26
Brake System 5-26
Compass 5-26
Door Ajar 5-27
Engine Cooling System 5-27
Engine Oil 5-27
Engine Power 5-27
Fuel System 5-28
Lamp 5-28
Object Detection System 5-28
Ride Control System 5-29
Service Vehicle 5-30
Tire 5-30
Transmission 5-31
Vehicle 5-25
Vehicle Reminder 5-31
Mirrors
Automatic Dimming Rearview 2-13
Blind Spot 2-12
Convex 2-11
Folding 2-12
Heated 2-12

Information Provided by:
DEALER E-PROCESS

Mirrors (cont'd)
Manual Rearview 2-13
Power 2-11
Tilt in Reverse 2-13
Monitor System, Tire Pressure 10-43
Multi-band Antenna 7-11

N

Navigation
OnStar® 14-2
Net, Convenience 4-4
New Vehicle Break-In 9-15

O

Object Detection System Messages 5-28
Odometer 5-10
Trip 5-10
Off-Road Recovery 9-5
Oil
Engine 10-7
Engine Oil Life System 10-9
Messages 5-27
Pressure Light 5-20
Older Children, Restraints 3-35
Online Owner Center 13-6
OnStar®
System, In Brief 1-21
OnStar® Additional Information 14-5
OnStar® Connections 14-3
OnStar® Diagnostics 14-5
OnStar® Emergency 14-2
OnStar® Navigation 14-2
OnStar® Overview 14-1
OnStar® Security 14-2
Operation, Infotainment System 7-4
Ordering
Service Publications 13-16
Outlets
Power 5-6
Overheating, Engine 10-15
Overview, Infotainment System 7-2

P

Park
Shifting Into 9-19
Shifting Out of 9-20
Parking
Assist, Ultrasonic 9-36
Brake 9-27
Brake and P (Park) Mechanism Check 10-21
Over Things That Burn 9-22
Passenger Airbag Status Indicator 5-12
Passenger Compartment Air Filter 8-6
Passenger Sensing System ... 3-29
Perchlorate Materials Requirements, California 10-2
Personalization
Vehicle 5-31
Phone
Bluetooth 7-16
Power
Door Locks 2-7
Mirrors 2-11
Outlets 5-6
Protection, Battery 6-6

Information Provided by: DEALER E-PROCESS

Power (cont'd)
Retained Accessory (RAP) ...9-19
Seat Adjustment 3-4
Windows 2-14
Power Steering Warning Lights 5-17
Pregnancy, Using Safety Belts 3-21
Privacy
Radio Frequency Identification (RFID) 13-20
Program
Courtesy Transportation 13-13
Proposition 65 Warning, California 10-2

R

Radio Frequency Identification (RFID) 13-20
Statement 13-20
Radios
AM-FM Radio 7-7
Reception 7-10
Reading Lamps 6-5
Rear Seat Armrest 3-14
Rear Seats 3-10
Rear Vision Camera (RVC) 9-38
Rear Window Washer/Wiper 5-4
Rearview Mirrors 2-13
Automatic Dimming 2-13
Reclining Seatbacks 3-5
Recommended
Fuel 9-42
Recommended Fluids and Lubricants 11-11
Records
Maintenance 11-13
Recreational Vehicle Towing 10-64
Reimbursement Program, GM Mobility 13-7
Remote Keyless Entry (RKE) System 2-2, 2-3
Remote Vehicle Start 2-5
Replacement Bulbs 10-26
Replacement Parts
Airbags 3-35
Maintenance 11-12
Replacing Airbag System 3-35
Replacing LATCH System Parts after a Crash 3-48
Replacing Safety Belt System Parts after a Crash ... 3-22
Reporting Safety Defects
Canadian Government 13-18
General Motors 13-18
U.S. Government 13-17
Restraints
Where to Put 3-41
Retained Accessory Power (RAP) 9-19
Reverse Tilt Mirrors 2-13
Ride Control Systems Messages 5-29
Roads
Driving, Wet 9-6
Roadside Assistance Program 13-7, 13-11
Roof
Sunroof 2-16
Roof Rack System 4-5
Rotation, Tires 10-48
Routing, Engine Drive Belt 12-4
Running the Vehicle While Parked 9-23

Information Provided by:
DEALER E-PROCESS

S

Safety Belts 3-14
Care 3-22
Extender 3-21
How to Wear Safety Belts Properly 3-15
Lap-Shoulder Belt 3-16
Reminders 5-11
Replacing after a Crash 3-22
Use During Pregnancy 3-21
Safety Defects Reporting
Canadian Government 13-18
General Motors 13-18
U.S. Government 13-17
Safety Locks 2-7
Safety System Check 3-22
Scheduling Appointments 13-12
Seats
Adjustment, Front 3-3
Folding Seatback 3-9
Head Restraints 3-2
Heated Front 3-8
Lumbar Adjustment, Front 3-4
Memory 3-6
Power Adjustment, Front 3-4
Seats (cont'd)
Rear 3-10
Reclining Seatbacks 3-5
Underseat Storage 4-2
Securing Child Restraints 3-48, 3-51
Security
OnStar® 14-2
Vehicle 2-9
Vehicle Alarm 2-9
Service
Accessories and Modifications 10-2
Doing Your Own Work 10-3
Engine Soon Light 5-14
Maintenance Records 11-13
Maintenance, General Information 11-1
Parts Identification Label 12-1
Publications Ordering Information 13-16
Scheduling Appointments . . . 13-12
Vehicle Messages 5-30
Servicing the Airbag 3-33
Shift Lock Control Function Check, Automatic Transmission 10-20
Shifting
Into Park 9-19
Out of Park 9-20
Signals, Turn and Lane-Change 6-4
Spare Tire
Compact 10-61
Specifications and Capacities 12-2
Speedometer 5-10
StabiliTrak
OFF Light 5-18
System 9-30
Start Assist, Hills 9-28
Start Vehicle, Remote 2-5
Starter Switch Check 10-20
Starting the Engine 9-17
Steering 9-5
Heated Wheel 5-3
Power, Warning Lights 5-17
Wheel Adjustment 5-2
Wheel Controls 5-2
Storage Areas
Cargo Cover 4-3
Cargo Management System . . . 4-3
Center Console 4-3

DEALER E-PROCESS

Storage Areas (cont'd)
Convenience Net 4-4
Instrument Panel 4-1
Roof Rack System 4-5
Sunglasses 4-2
Underseat 4-2
Stuck Vehicle 9-10
Sun Visors 2-16
Sunglass Storage 4-2
Sunroof 2-16
Symbols iv
System
Forward Collision Alert (FCA) 9-34
Infotainment 13-20, 7-1
Roof Rack 4-5

T

Tachometer 5-10
Text Telephone (TTY) Users . . . 13-6
Theft-Deterrent Systems 2-10
Immobilizer 2-10
Time 5-6
Tires
Buying New Tires 10-50
Chains 10-55
Changing 10-57
Compact Spare 10-61
Designations 10-39
Different Size 10-52
If a Tire Goes Flat 10-55
Inflation Monitor System 10-44
Inspection 10-48
Messages 5-30
Pressure Light 5-20
Pressure Monitor System . . . 10-43
Rotation 10-48
Sidewall Labeling 10-37
Terminology and Definitions 10-39
Uniform Tire Quality Grading 10-52
Wheel Alignment and Tire Balance 10-54
Wheel Replacement 10-54
When It Is Time for New Tires 10-49
Winter 10-36
Towing
General Information 9-47
Recreational Vehicle 10-64
Vehicle 10-64
Traction
Control System (TCS) 9-28
Control System (TCS)/ StabiliTrak® Light 5-19
Off Light 5-18
Transmission
Automatic 9-23
Fluid, Automatic 10-10
Messages 5-31
Transportation Program, Courtesy 13-13
Triangle, Warning 4-4
Trip Odometer 5-10
Turn and Lane-Change Signals 6-4

U

Ultrasonic Parking Assist 9-36
Underseat Storage 4-2
Uniform Tire Quality Grading 10-52
Using This Manual iii

Information Provided by: DEALER E-PROCESS

V

Vehicle
Alarm System 2-9
Canadian Owners iii
Control 9-4
Design 9-2
Identification
Number (VIN) 12-1
Load Limits 9-10
Messages 5-25
Personalization 5-31
Reminder Messages 5-31
Remote Start 2-5
Security 2-9
Towing 10-64
Vehicle Ahead Indicator 5-18
Vehicle Care
Tire Pressure 10-42
Ventilation, Air 8-6
Visors 2-16

W

Warning
Brake System Light 5-16
Warning Lights, Gauges, and
Indicators 5-8
Warning Triangle 4-4
Warnings iv
Cautions and Danger iv
Hazard Flashers 6-3
Washer Fluid 10-16
Wheels
Alignment and Tire
Balance 10-54
Different Size 10-52
Replacement 10-54
When It Is Time for New
Tires 10-49
Where to Put the Restraint 3-41
Windows 2-14
Power 2-14
Windshield
Wiper/Washer 5-3
Winter
Driving 9-8
Winter Tires 10-36
Wiper Blade Replacement 10-21
Wipers
Rear Washer 5-4

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